

# User's Guide

## PowerAlert® Element Manager

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# 1. Introduction

The PowerAlert Element Manager (PAEM) is a software application that facilitates configuration and maintenance of Tripp Lite LX Platform devices. PAEM contains a discovery engine to identify supported Tripp Lite solutions on the network. PAEM then leverages this information when performing the following functions:

- **Mass Configuration** – Concurrently applying a source configuration to multiple target devices.
- **Mass Update** – Concurrently installing LX Platform firmware onto multiple LX Platform devices.

## 1.1 Supported Platforms

PAEM operates with the following software and hardware platforms:

- LX Platform Hardware:
  - WEBCARDLX, WEBCARDLXMINI
  - Slotted UPS systems (e.g. SMART750RM1U)
  - UPS systems with preinstalled WEBCARDLX (e.g. SMART750RM1UN)
  - Monitored LX PDUs (e.g. PDU3EVN series)
  - Switched LX PDUs (e.g. PDU3EVSR series)
  - PDUs with preinstalled WEBCARDLX (e.g. PDUMNH20)
  - Slotted ATS systems (e.g. PDUMH15AT)
  - ATS systems with preinstalled WEBCARDLX (e.g. PDUMH15ATNET)
  - SRCOOLNETLX, SRCOOLNET2LX
  - Slotted SRCOOL models e.g. SRCOOL18K

PAEM does NOT operate with the following platforms:

- SNMPWEBCARD Platform (e.g. legacy PDUs, SRCOOLNET, etc.)
- PowerAlert Local Software (PAL)
- PowerAlert Network Management System Software (PANMS)
- PowerAlert Network Shutdown Agent Software (PANSA)
- Tripp Lite KVMs
- Tripp Lite Managed Switches
- Tripp Lite Console Servers
- Non-Tripp Lite devices

# 1. Introduction

## 1.2 Supported Mass Configurations

PAEM supports the following mass configurations:

- Between identical LX Platform device models (e.g. PDU15NETLX to PDU15NETLX)
- Between LX devices of the same product family (e.g. PDUMNV15 to PDUMNV30)
- Between LX device model types (e.g. a monitored PDU to one or more switched PDUs)
- Between device types within the LX Platform (e.g. a PDU to one or more UPS systems)
- Within firmware platforms (i.e. version 15.5.x to 15.5.x and 20.x.x to 20.x.x)
- Across firmware platforms (i.e. version 15.5.x to 20.x.x and 20.x.x to 15.5.x)

Note that during mass configurations between firmware platforms, dissimilar configuration parameters will be disregarded. For example, firmware version 15.5.x supports Realms, whereas version 20.x.x does not. Conversely, firmware version 20.x.x supports Privileges, whereas 15.5.x does not. During a mass configuration from 15.5.x to 20.x.x, any Realm configurations will be disregarded—PAEM will not “translate” Realms to equivalent Privileges. This also applies to log settings; due to log differences between 15.5.x and 20.x.x, log settings must be manually edited after the upgrade or downgrade.

Similarly, mass configurations between different device types (e.g. PDU to UPS) will ignore dissimilar or unique parameters:

### Shared Parameters

- Local Users
- Network Services
- SMTP Settings
- AAA Settings
- Security Servers
- Syslog Servers
- Time Settings
- Auto Probes
- SNMP Alert Contacts
- SMTP Alert Contacts
- SMS Alert Contacts
- SNMPv1, v2 Users
- SNMPv3 Users
- Accounting Log
- Data Log
- Application Log
- Event Log
- Default Display Settings
- Password Settings
- Roles

### Ignored Parameters

- Devices
- Actions
- Loads
- load groups
- Events
- Variables
- Schedules

# 1. Introduction

## 1.3 Supported Firmware Updates and Downgrades

PAEM supports the following firmware updates:

- Maintenance releases within a platform, for instance from 15.5.1 to 15.5.3
- Minor releases within a platform, for instance from 20.0.x to 20.1.x
- Major releases for instance from 15.5.x to 20.0.x
- Devices must be running firmware version of 15.5.2 or higher in order to upgrade to PADM20 (if devices are running firmware versions 15.5.1 or earlier, they must be upgraded to 15.5.7 prior to the PADM20 upgrade)

PAEM supports the following firmware downgrades:

- Maintenance releases within a platform, for instance from 15.5.3 to 15.5.1
- Minor releases within a platform, for instance from 20.1.x to 20.0.x
- Major releases, down two increments, for instance from 20.1.x to 15.5.7

### Notes:

- *PAEM does NOT support updates or downgrades of firmware versions earlier than 15.5.1.*
- *The only supported major release downgrade is to 15.5.7. If a downgrade is needed to an earlier version, first perform the major release downgrade to 15.5.7, then a maintenance release downgrade to the desired version.*
- *A major release downgrade to 15.5.7 will reset the LX interface to Factory Default Settings and will not retain network settings; it will revert to DHCP.*

## 1.4 System Requirements

- Personal computer with a supported operating system: Windows 7, 8 or 10; Windows Server 2008, 2012, 2016 or 2019
- CPU: 4 core 2.0 GHz or higher
- Memory: minimum of 1.5 GB
- Disk Space: minimum of 40 GB
- Ethernet network that supports the TCP/IP protocol
- Supported web browser: Google Chrome, Mozilla Firefox, Internet Explorer 10 or later, Safari

PAEM operations may fail when executed remotely. Ensure that the network administrator lifts network restriction that block outgoing HTTP/HTTPS traffic from the device to the PAEM HTTP/HTTPS Port.

Download the latest version of PowerAlert Element Manager from the Tripp Lite website at [tripplite.com/products/management-software](http://tripplite.com/products/management-software)

For detailed instructions on installing PAEM, refer to the PAEM Installation Guide.

## 2. Launching PAEM

### 2.1 Local Access

During PAEM installation, a PAEM icon (Figure 2-1) is added to the desktop of the computer. To access PAEM from this computer, double-click the icon.



Figure 2-1: PAEM Desktop Icon

### 2.2 Remote Access

To access PAEM remotely, open a supported web browser. In the address bar, enter the IP address of the server on which PAEM is installed, followed by the configured port, e.g. `http://192.168.1.1:8080` (Figure 2-2).

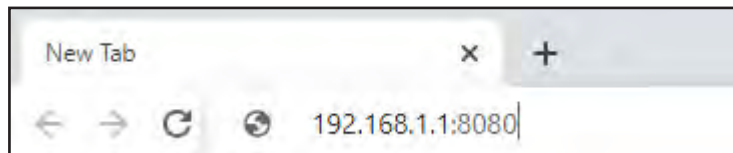


Figure 2-2: Accessing PAEM from a Web Browser

The default Login and Password are both **localadmin**.

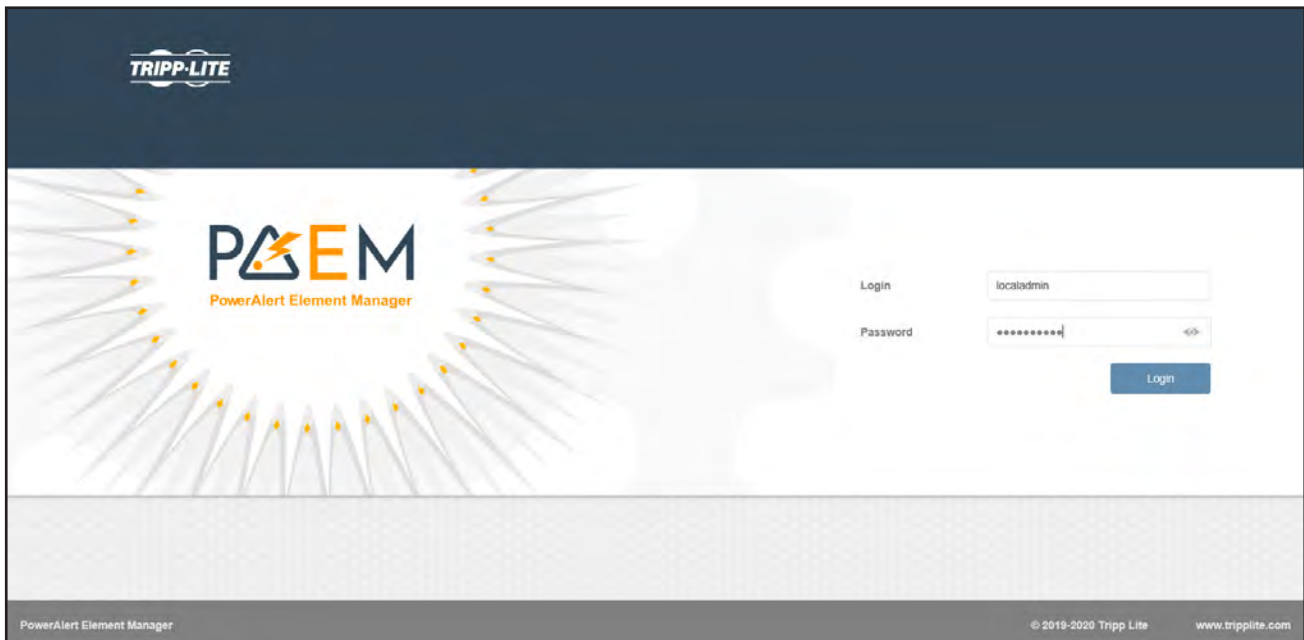
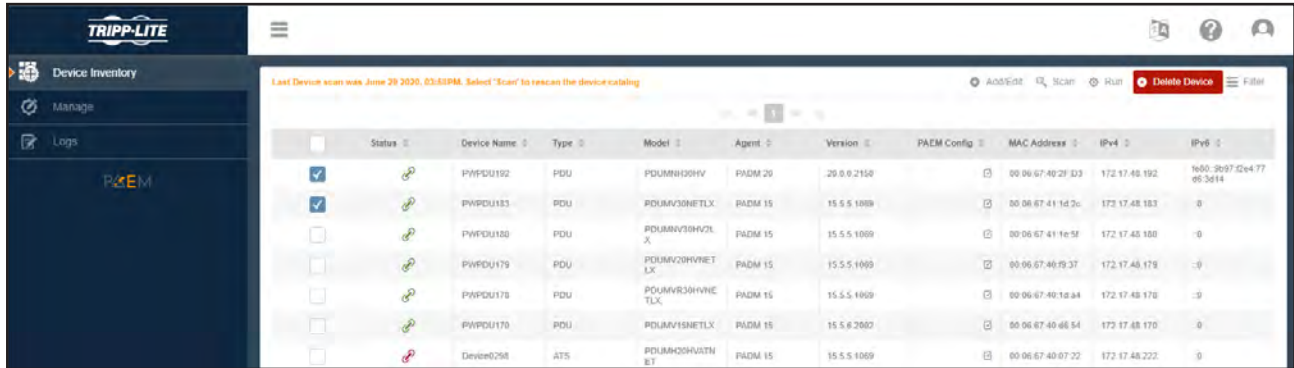


Figure 2-3: Login Page

## 2. Launching PAEM

Upon successful log in, PAEM displays the Device Inventory page (Figure 2-4). See section **5.1 Device Inventory** for details.



The screenshot shows the PAEM Device Inventory page. The interface includes a dark blue sidebar with the TRIPP-LITE logo and navigation options: Device Inventory, Manage, and Logs. The main content area displays a table of devices with a status bar at the top indicating the last scan time. The table has columns for Status, Device Name, Type, Model, Agent, Version, PAEM Config, MAC Address, IPv4, and IPv6. The first two rows are checked, and the last row is marked as disconnected.

Status	Device Name	Type	Model	Agent	Version	PAEM Config	MAC Address	IPv4	IPv6
<input checked="" type="checkbox"/>	PWFDU192	PDU	PDUMH09HV	PADM 20	20.0.0.2100	<input type="checkbox"/>	00:06:67:40:2F:03	172.17.48.192	1600:2b57:2e4:77:0:3d14
<input checked="" type="checkbox"/>	PWFDU133	PDU	PDUMV09NETLX	PADM 15	15.5.5.1009	<input type="checkbox"/>	00:06:67:41:1d:2c	172.17.48.183	0
<input type="checkbox"/>	PWFDU120	PDU	PDUMV09HV2LX	PADM 15	15.5.5.1009	<input type="checkbox"/>	00:06:67:41:1e:5f	172.17.48.180	0
<input type="checkbox"/>	PWFDU179	PDU	PDUMV09HWETLX	PADM 15	15.5.5.1009	<input type="checkbox"/>	00:06:67:40:18:44	172.17.48.178	0
<input type="checkbox"/>	PWFDU178	PDU	PDUMV09HWETLX	PADM 15	15.5.5.1009	<input type="checkbox"/>	00:06:67:40:18:44	172.17.48.178	0
<input type="checkbox"/>	PWFDU170	PDU	PDUMV18NETLX	PADM 15	15.5.6.2007	<input type="checkbox"/>	00:06:67:40:46:54	172.17.48.170	0
<input type="checkbox"/>	Device258	ATS	PDUMH09HWNET	PADM 15	15.5.5.1009	<input type="checkbox"/>	00:06:67:40:07:22	172.17.48.222	0

Figure 2-4: Device Inventory Page

# 3. PAEM Overview

## 3.1 PAEM Layout

The PAEM interface is comprised of three main sections (Figure 3-1):

- 1 Main Menu** – Navigation to operational functions.
- 2 Top Menu** – Administrative functions.
- 3 Content** – Information reflective of selections made in the Main Menu or Top Menu.

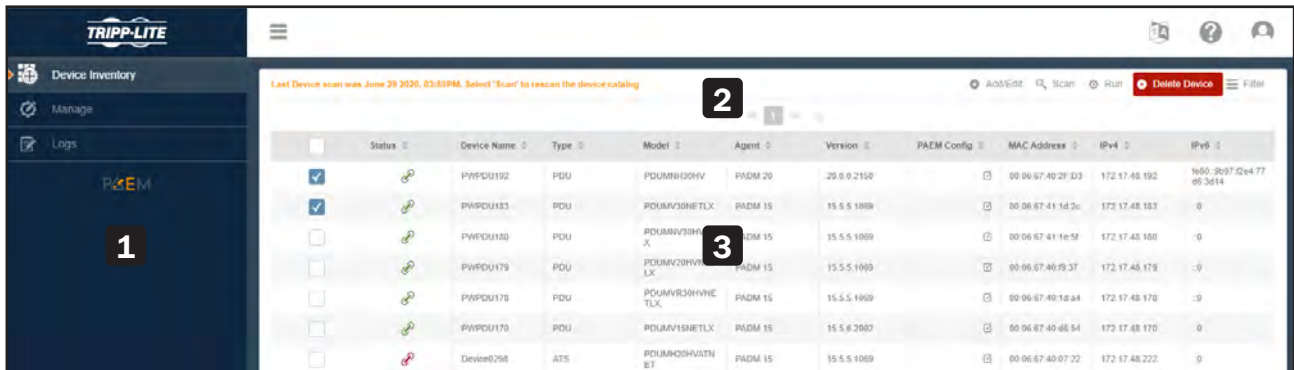


Figure 3-1: PAEM Main Sections

## 3.2 Navigation Elements

A number of graphical elements are used for navigation throughout the interface.

### 3.2.1 Tabs

Tabs are used to organize information of a common topic into logical groupings (Figure 3-2). Select a tab to view its content.

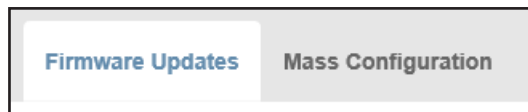


Figure 3-2: Tabs

### 3.2.2 Pages

Sequenced numbers with arrows indicate that the content exceeds one page (Figure 3-3). Select each to navigate pages as follows:

◀ - Go to the first pages of the content.

◀ - Go to the previous page.

**number** - Go directly to the selected page.

▶ - Go to the next page.

▶ - Go to the last page of the content.



Figure 3-3.: Pages



## 3. PAEM Overview

### 3.2.3 Scroll Bars

In cases where content exceeds the size of the window, vertical and/or horizontal scroll bars appear (Figure 3-4).

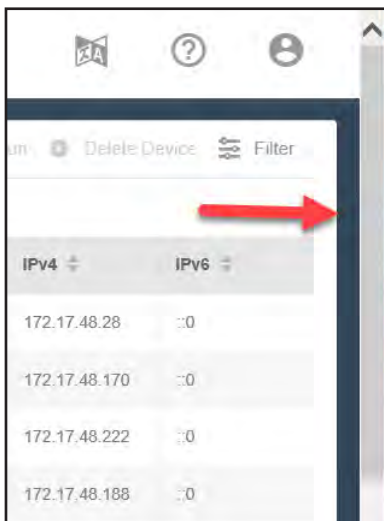


Figure 3-4: Scroll Bars

### 3.2.4 Back Function

Click on Back to return to the previous page (Figure 3-5).



Figure 3-5: Back Function

## 3.3 Adjusting Views

### 3.3.1 Sorting

When content is displayed in table format, the information can be sorted in the following ways (Figure 3-6):

- **Columns** – Click a column title to sort the table by that category, in ascending order.
- **Arrows** - Click the up and down arrows adjacent to the column title to sort the table in ascending or descending order, respectively.



Figure 3-6: Columns and Arrows

## 3. PAEM Overview

### 3.3.2 Filters

Click **Filter** to open a dialog box in which a variety of filtering options can be selected. Click the **Apply Filters** button to update the displayed information. Click the **Clear Filters** button to restore the default view (Figure 3-7).

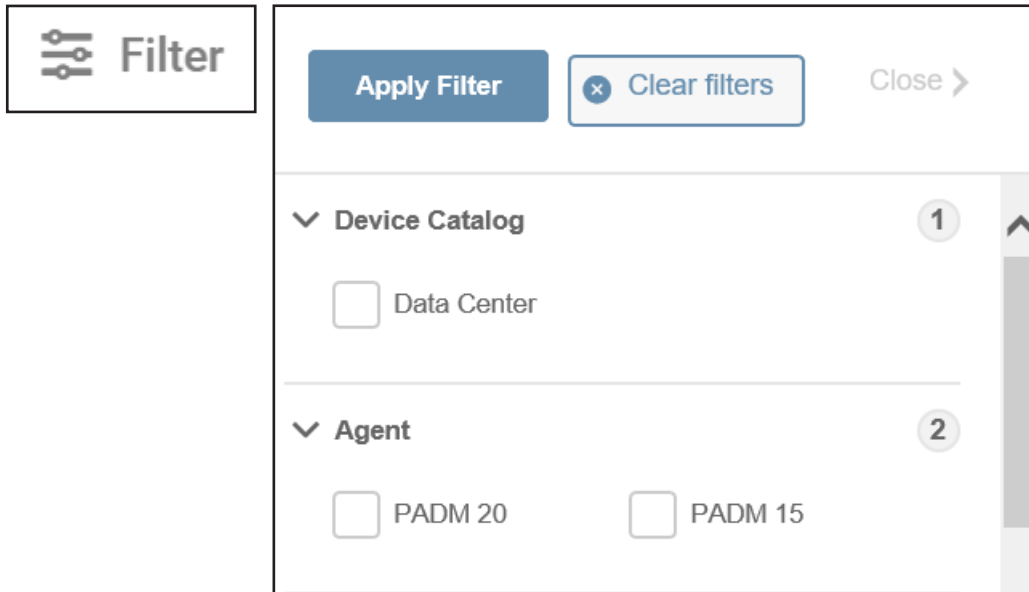


Figure 3-7: Filter Functions

### 3.3.3 Refresh

Click **Refresh** to update the displayed content (Figure 3-8).

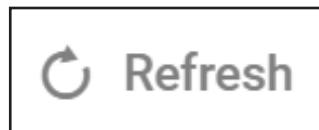


Figure 3-8: Refresh

### 3.3.4 Pencil

The pencil icon indicates that the item can be edited (Figure 3-9). Click the icon to open a window in which the edits can be made.



Figure 3-9: Edit

### 3.3.5 Export

Click **Export** to configure and generate an export of the contents (Figure 3-10).

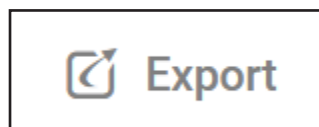


Figure 3-10: Export

## 3. PAEM Overview

### 3.3.6 Import

Click **Import** to upload source content. (Figure 3-11)



Figure 3-11: Import

### 3.3.7 Check for Updates

Click this link to check the Tripp Lite website for the latest firmware version(s) (Figure 3-12).



Figure 3-12: Check for Updates

## 3.4 Icons

### 3.4.1 Magnifying Glass

The magnifying glass icon indicates that the item has details (Figure 3-13). Click the icon to view the details.



Figure 3-13: Magnifying Glass

### 3.4.2 Delete

The ✕ icon indicates the item can be deleted (Figure 3-14). Click the icon to mark the item for deletion; the action will change the icon color to red. To complete the deletion, click the **Delete** button (also in red).



Figure 3-14: Delete Icon

### 3.4.3 Checkmark

Used in the in Logs page, a green checkmark indicates no errors were encountered (Figure 3-15).



Figure 3-15: Checkmark

## 3. PAEM Overview

### 3.4.4 Warning

The Warning icon denotes that an error occurred during a process (Figure 3-16).

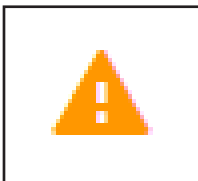


Figure 3-16: Warning Icon

### 3.4.5 Link

The Link icon is a hyperlink to the PowerAlert Device Manager interface of each device; click on the link to open the interface in a new web page. The icon color denotes the outcome of the most recent operation involving the device (Figure 3-17). For example, if a device encountered an error during a Mass Configuration operation, the link icon will appear yellow. If a subsequent Scan of that device is completed successfully, the icon will turn green.

- **Green** – The operation completed successfully.
- **Yellow** – An error occurred during an operation; see the Log for details.
- **Red** – The devices is offline/cannot be found.
- **Green with Yellow Lock** – The device can communicate but has not been authenticated (requires password update).

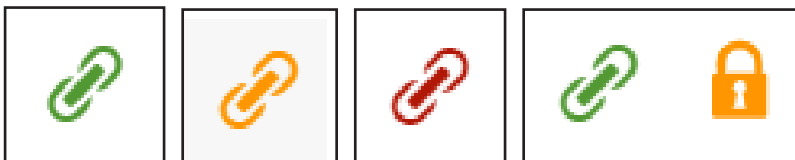


Figure 3-17: Link Icons

## 4. Top Menu

### 4.1 Language

Click the Language icon to select a personal preference for the desired language (Figure 4-1).

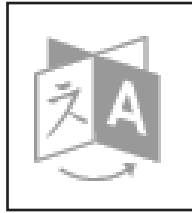
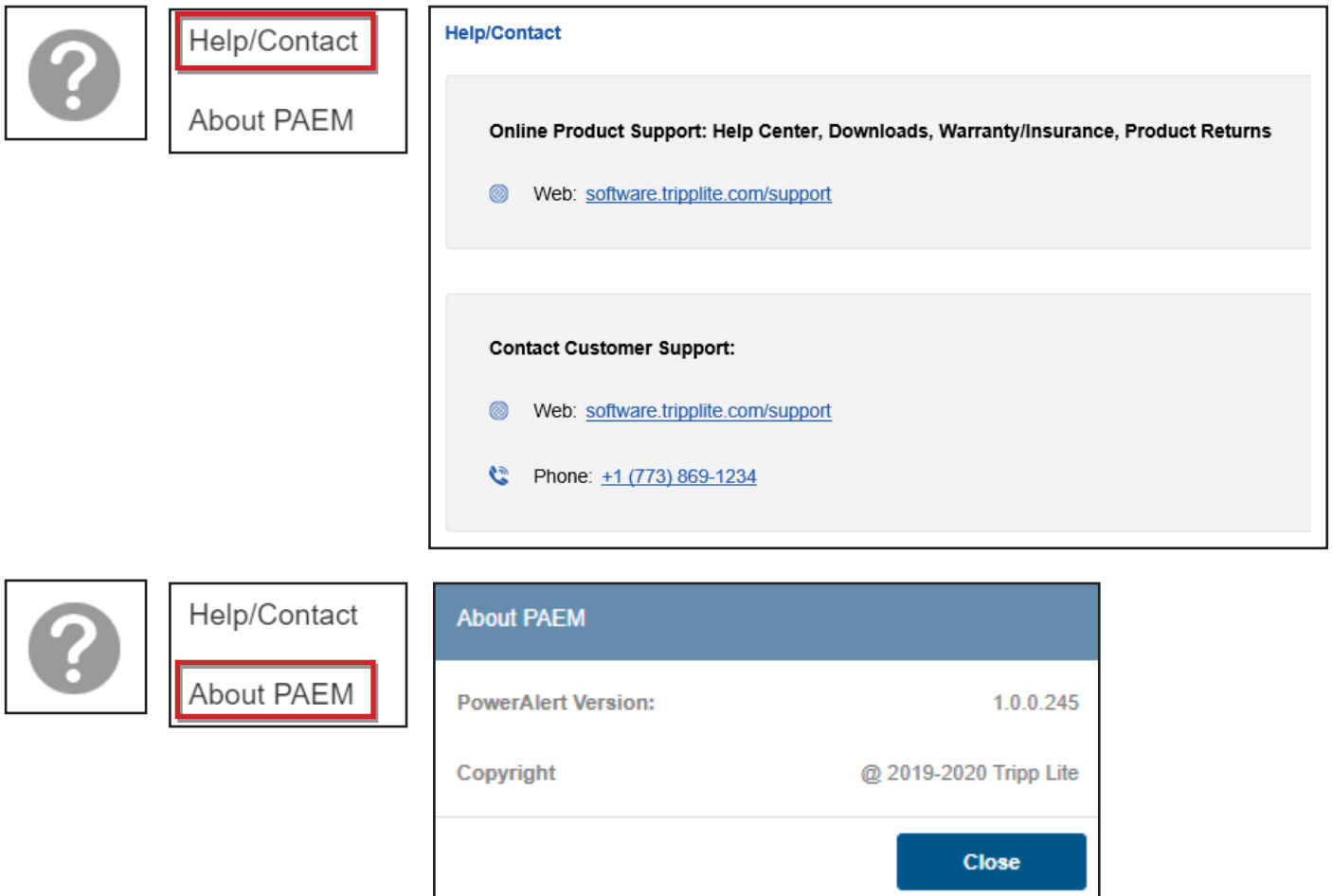


Figure 4-1: Language Icon

### 4.2 Support

Click the Question icon to display a sub-menu of Support items. Click **Help/Contact** to display information and links to product and technical support. Click **About PAEM** to display information about the PowerAlert Element Manager application (Figure 4-2).



The figure shows two examples of the support sub-menu. In the first example, the 'Help/Contact' option is selected, displaying a panel with the following content:

- Help/Contact**
- Online Product Support: [Help Center](#), [Downloads](#), [Warranty/Insurance](#), [Product Returns](#)
- Web: [software.tripplite.com/support](http://software.tripplite.com/support)
- Contact Customer Support:
- Web: [software.tripplite.com/support](http://software.tripplite.com/support)
- Phone: [+1 \(773\) 869-1234](tel:+17738691234)

In the second example, the 'About PAEM' option is selected, displaying a panel with the following content:

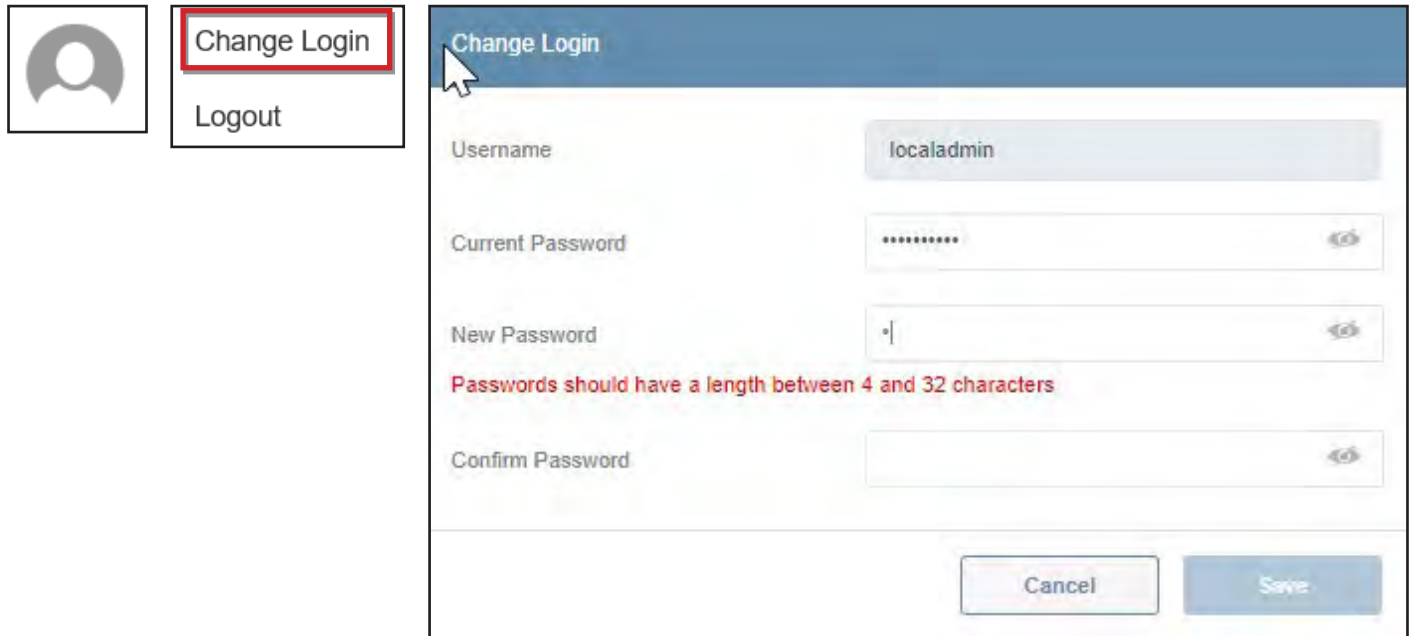
- About PAEM**
- PowerAlert Version: 1.0.0.245
- Copyright @ 2019-2020 Tripp Lite
- Close

Figure 4-2: Help and About PAEM

## 4. Top Menu

### 4.3 User

Click the Person icon to display a submenu of options related to the login. Click **Change Login** to change the existing password of the logged-in user. Click on the eye icon to view the plaintext password entered. Passwords must contain between 4 and 32 characters. Click **Log Out** to terminate the current session (Figure 4-3).



The image shows a user interface for changing a password. On the left, a person icon is shown with a submenu containing 'Change Login' (highlighted with a red box) and 'Logout'. The main area is a 'Change Login' form with the following fields:

- Username:** localadmin
- Current Password:** masked with dots, with an eye icon to toggle visibility.
- New Password:** contains a single character, with an eye icon to toggle visibility.
- Confirmation:** A red error message states: "Passwords should have a length between 4 and 32 characters".
- Confirm Password:** empty field with an eye icon to toggle visibility.

At the bottom right, there are 'Cancel' and 'Save' buttons.

Figure 4-3: User Menu, Change Password and Logout

# 5. Main Menu

The Main Menu enables navigation to the primary functions of PAEM. Each of the Main Menu items (shown in Figure 5-1) is described in the following sections.

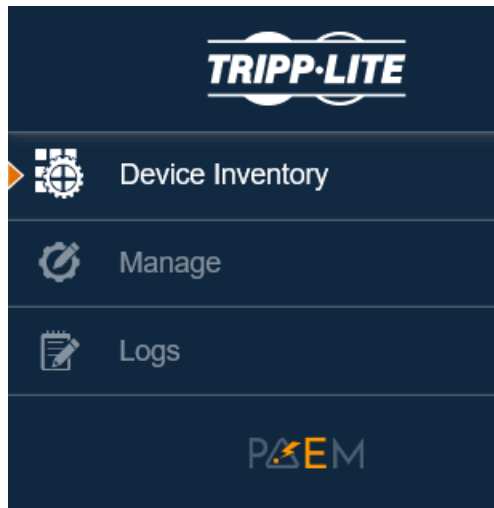


Figure 5-1: Main Menu

## 5.1 Device Inventory

The **Device Inventory** menu item displays a chart of all discovered devices. (Figure 5-2). On initial login, the chart will not be populated. Prior to running a scan, one or more Scan Profiles must be created.

Status	Device Name	Type	Model	Agent	Version	PAEM Config	MAC Address	IPv4	IPv6
<input type="checkbox"/>	PWPDU192	PDU	PDUHRH30HV	PADM 20	20.0.0.2100	<input checked="" type="checkbox"/>	00:06:67:40:2F:D3	172.17.45.192	fe80:206:67f:fe4:9283
<input type="checkbox"/>	PWPDU183	PDU	PDUHV30NETLX	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:41:1d:2c	172.17.45.183	-:0
<input type="checkbox"/>	PWPDU180	PDU	PDUHV30HV2LX	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:41:1e:5f	172.17.45.180	-:0
<input type="checkbox"/>	PWPDU179	PDU	PDUHV20HVNETLX	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:40:09:37	172.17.45.179	-:0
<input type="checkbox"/>	PWPDU175	PDU	PDUHV30HVNETLX	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:40:1d:a4	172.17.45.175	-:0
<input type="checkbox"/>	PWPDU170	PDU	PDUHV15NETLX	PADM 15	15.5.6.2002	<input checked="" type="checkbox"/>	00:06:67:40:05:54	172.17.45.170	-:0
<input type="checkbox"/>	Device0290	ATS	PDUHV20HVNETLX	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:40:07:22	172.17.45.222	-:0
<input type="checkbox"/>	Device0296	PDU	PDUHRH20	PADM 20	20.0.0.2094	<input checked="" type="checkbox"/>	00:06:67:40:2F:3F	172.17.45.194	fe80:a8f:395:99c5:54cf
<input type="checkbox"/>	Device0148	AC	SRDCDGL	PADM 20	20.0.0.2100	<input checked="" type="checkbox"/>	00:06:67:41:FF:34	172.17.45.151	fe80:206:67f:fe4:17734
<input type="checkbox"/>	Device0117	PDU	PDUHRH20HV	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:40:4F:67	172.17.45.100	-:0
<input type="checkbox"/>	Device0117	PDU	PDU3EVNBL2130B	PADM 20	20.0.0.2100	<input checked="" type="checkbox"/>	00:06:67:41:02:1E	172.17.45.175	fe80:206:67f:fe4:121e
<input type="checkbox"/>	Device0199	PDU	PDU3EVSR660A	PADM 20	20.0.0.2100	<input checked="" type="checkbox"/>	00:06:67:41:3E:3C	172.17.45.172	fe80:206:67f:fe4:13e3c
<input type="checkbox"/>	Device0054	PDU	PDUHV30NETLX	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>	00:06:67:40:2d:a8	172.17.45.187	-:0
<input type="checkbox"/>	Device0977	PDU	PDU3EVSR8L212B	PADM 20	20.0.0.2100	<input checked="" type="checkbox"/>	00:06:67:41:3D:D3	172.17.45.177	fe80:206:67f:fe4:13d83

Figure 5-2: Device Inventory

## 5. Main Menu

### 5.1.1 Creating a Scan Profile

To create a Scan Profile, click **Add/Edit** at the top of the Device Inventory page. In the Scan Profiles window that opens, click the **Add** button (Figure 5-3).

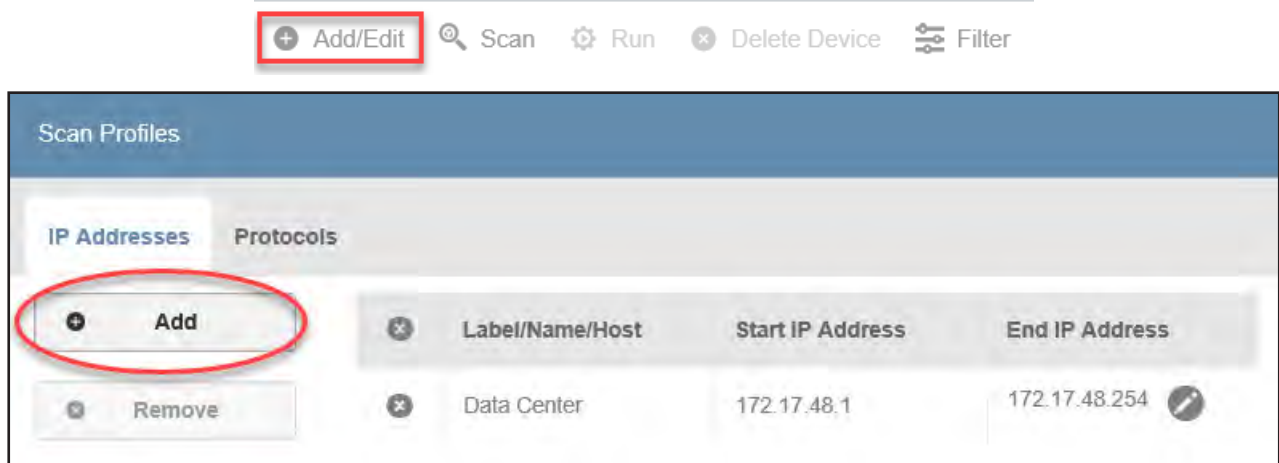
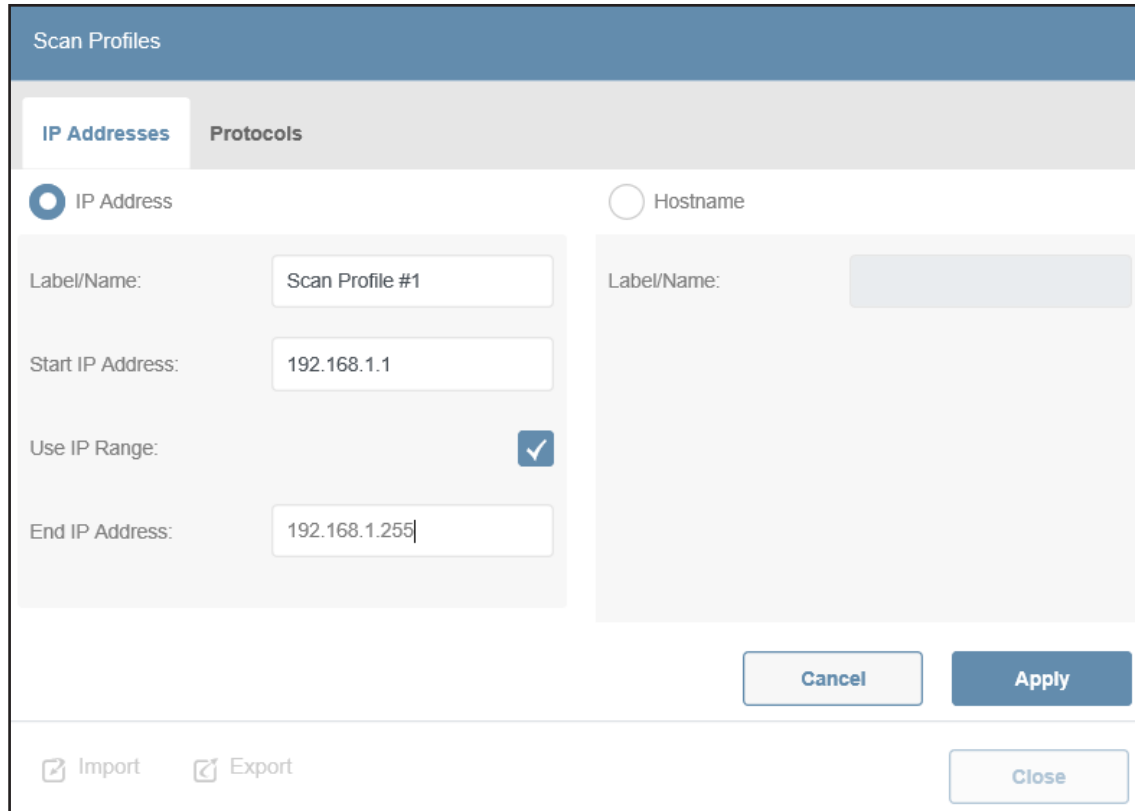


Figure 5-3: Adding a Scan Profile

A window opens to the *IP Addresses* tab, with the “IP Address” option selected by default (Figure 5-4). Enter a name for the profile as well as the starting IP address. To create a range of IP addresses, select the “Use IP Range” option and enter the ending IP address of the range. If no range is specified, only the Start IP Address will be scanned. To add a device to the profile using its hostname, select the **Hostname** option, then enter the host name in the field provided. Click the **Apply** button once all inputs have been made.



The screenshot shows the 'Scan Profiles' window with the 'IP Addresses' tab selected. The 'IP Address' radio button is selected, and the 'Hostname' radio button is unselected. The form has two columns. The left column has fields for 'Label/Name' (Scan Profile #1), 'Start IP Address' (192.168.1.1), 'Use IP Range' (checked), and 'End IP Address' (192.168.1.255). The right column has a 'Label/Name' field. At the bottom, there are 'Cancel' and 'Apply' buttons. At the very bottom, there are 'Import', 'Export', and 'Close' buttons.

Figure 5-4: Enter IP Address Range



## 5. Main Menu

Next, click on the *Protocols* tab to enter all required device credentials. These credentials allow access to the device for retrieving data and executing PAEM operations. Note that multiple credentials may be required to support all functions. The table below identifies the protocols required for the each PAEM operation, for both 15.5.x and 20.x.x firmware versions. In all cases, the entered Protocol information must exactly match the credentials and authentication parameters of the device.

FUNCTION	DETAILS	15.5.x	20.x.x
Scan	For HTTP with 20.x.x, select the “Use SSL” checkbox to use HTTPS as the connection method.	SSH or SNMP	HTTP or SNMP
Mass Update	Select the “Use SSL” checkbox to use HTTPS as the connection method.	HTTP	HTTP
Mass Configuration	For 20.x.x, select the “Use SSL” checkbox to use HTTPS as the connection method.	SSH	HTTP

### HTTP

- **Authentication** - Select “PADM20” for target devices running 20.x.x firmware or “PADM15” for target devices running 15.5.x firmware
- **User Name** - Input a valid administrative username
- **Password** - Input a valid administrative password
- **Port** - Input the HTTP(S) port for the target devices
- **Use SSL** - If unchecked, PAEM will use HTTP. If checked, PAEM will use HTTPS. Note that HTTP to HTTPS redirect is enabled in 20.x.x by default

### SNMPv1/v2c

- **Port** - Input the SNMP port (default 161) for the target devices.
- **Community** - Input a valid SNMP community string (username) for the target devices.

#### Notes:

1. *SNMPv1 community of ‘public’ and SNMPv2c community of ‘tripplite’ are the default credentials for 15.5.x. These are also the respective default credentials used by PAEM. As a result, when using default credentials, no changes to either are required for PAEM to Scan 15.x.x devices via SNMP.*
2. *For firmware version 15.5.7 and above, SNMPv1 and SNMPv2c are disabled by default. These services must be first enabled on the devices for PAEM to Scan them via SNMPv1 or SNMPv2c. Alternatively, in PAEM, add an SSH protocol with administrative credentials for 15.x.x or HTTP(S) for 20.x.x.*

### SNMPv3

- **Port** - Input the SNMP port (default 161) for the target devices.
- **Username** - Input a valid SNMPv3 for the target devices.
- **Privacy Mode** - Select noauthnopriv, authnopriv, or authpriv depending on target device configuration
- **Auth Protocol** - If authnopriv or authpriv are the privacy mode, select MD5 or SHA depending on target device configuration. **Note:** *currently all supported devices use SHA.*
- **Auth Passphrase** - If authnopriv or authpriv are the privacy mode, input the Auth Passphrase associated with the User Name
- **Privacy Protocol** - If authpriv is the privacy mode, select DES, AES, AES192, or AES256 as the privacy protocol. **Note:** *Currently all supported devices use AES.*
- **Privacy Passphrase** - If authpriv is the privacy mode, input the Privacy Passphrase associated with the User Name

## 5. Main Menu

**SSH** (applies only for PAEM operations on devices running firmware version 15.5.x)

- **User Name** - Input a valid administrative username
- **Password** - Input a valid administrative password
- **Port** - Leave this value at 3664 unless instructed otherwise by Tripp Lite Technical Support

In summary, an SSH administrative credential and a HTTP(S) credential are required to get full PAEM functionality on devices running 15.x.x. For 20.x.x, only an HTTP(S) administrative credential is required for full PAEM functionality.

Scan Profiles

IP Addresses Protocols

+ Add

x Remove

x	Type	Label/Name	Port	
x	HTTP (Default)	PADM15 HTTP	80	<input checked="" type="checkbox"/>
x	HTTP (Default)	PADM20 HTTP S	443	<input checked="" type="checkbox"/>
x	SNMPv2c (Default)	Tripplite SNMP	161	<input checked="" type="checkbox"/>
x	SSH (Default)	PADM15 Administrator	3664	<input checked="" type="checkbox"/>
x	HTTP	OAuth	80	<input checked="" type="checkbox"/>

Close

Figure 5-5: Protocols

## 5. Main Menu

To add a new protocol, click the **Add** button. In the window that opens, enter a name for the entry, then select the desired protocol from the *Type* pulldown menu. The remaining fields in the window will change to reflect the selected Type. Once all fields have been entered, click the **Apply** button.

**Note:** For firmware platform 20.x.x, if the Scan Profile has HTTP as the sole Protocol, ensure each device within the profile has “HTTP to HTTPS Redirection” disabled. Alternatively, change the protocol to HTTPS or add HTTPS to the Scan Profile to account for the redirection.

The screenshot shows a configuration window titled "Scan Profiles" with two tabs: "IP Addresses" and "Protocols". The "Protocols" tab is active. Below the tabs is a section titled "Add/Edit Protocols" containing the following fields:

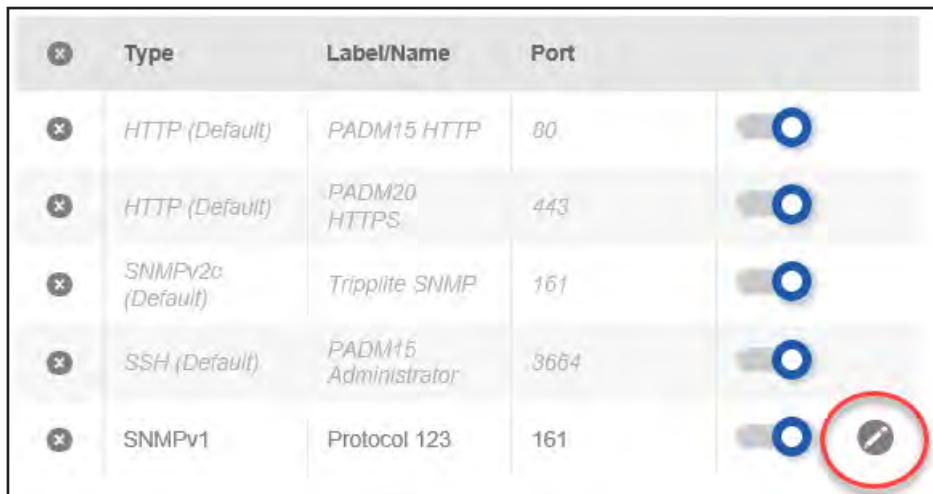
- Label/Name: v3Protocol9
- Type: SNMPv3 (dropdown menu)
- Port: 161
- User name: Admin123
- Privacy Mode: AuthPriv (dropdown menu)
- Auth Protocol: MD5 (dropdown menu)
- Auth Passphrase: masked with dots and an eye icon
- Privacy Protocol: AES256 (dropdown menu)
- Privacy Passphrase: masked with dots and an eye icon

At the bottom right of the window are two buttons: "Cancel" and "Apply".

Figure 5-6: Adding a Protocol (SNMPv3 Example)

## 5. Main Menu

To edit a Protocol entry, click on the pencil icon to the right of the entry (Figure 5-7).

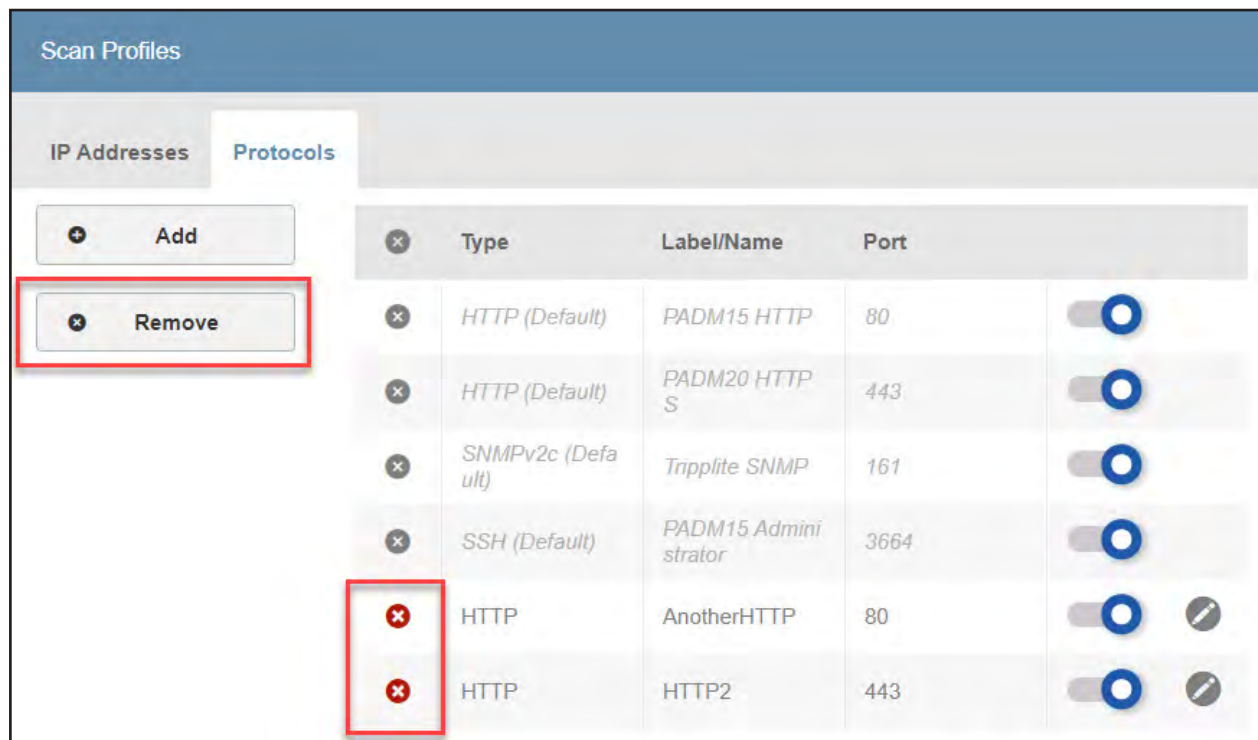


A screenshot of a protocol configuration interface. It features a table with columns for 'Type', 'Label/Name', and 'Port'. Each row has a pencil icon on the right side. The 'Protocol 123' entry's pencil icon is circled in red.

Type	Label/Name	Port
HTTP (Default)	PADM15 HTTP	80
HTTP (Default)	PADM20 HTTP/HTTPS	443
SNMPv2c (Default)	Tripplite SNMP	161
SSH (Default)	PADM15 Administrator	3664
SNMPv1	Protocol 123	161

Figure 5-7: Editing a Protocol Entry

To remove one or more protocols, click the ✕ icon of the desired protocols (which will turn red), then click the **Remove** button (Figure 5-8).



A screenshot of the 'Scan Profiles' interface. It shows a 'Protocols' tab with an 'Add' and 'Remove' button. A table lists protocols with '✕' icons. The 'Remove' button and the '✕' icons for 'AnotherHTTP' and 'HTTP2' are highlighted with red boxes.

Type	Label/Name	Port
HTTP (Default)	PADM15 HTTP	80
HTTP (Default)	PADM20 HTTP/HTTPS	443
SNMPv2c (Default)	Tripplite SNMP	161
SSH (Default)	PADM15 Administrator	3664
✕ HTTP	AnotherHTTP	80
✕ HTTP	HTTP2	443

Figure 5-8: Removing Protocols

## 5. Main Menu

### 5.1.2 Importing/Exporting Scan Profiles

PAEM allows for Scan Profiles to be exported and imported. In the main Device Inventory page, click **Add/Edit** to open the Scan Profiles window; the **Import** and **Export** buttons appear at the bottom of the window (Figure 5-9).

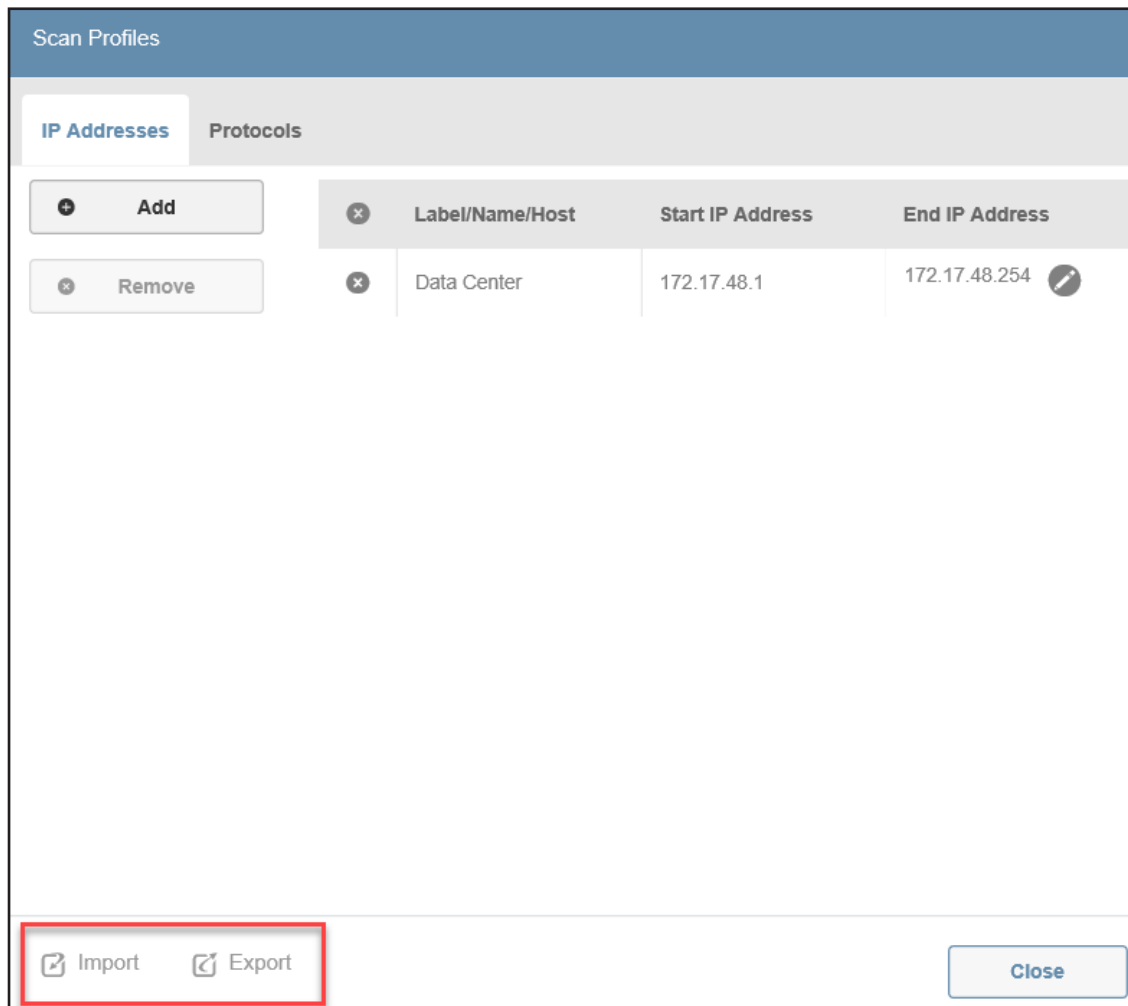


Figure 5-9: Import and Export Functions

## 5. Main Menu

On selecting **Import**, a standard directory tree window will open. Navigate to the location of the file, select it, then click **Open** (Figure 5-10).

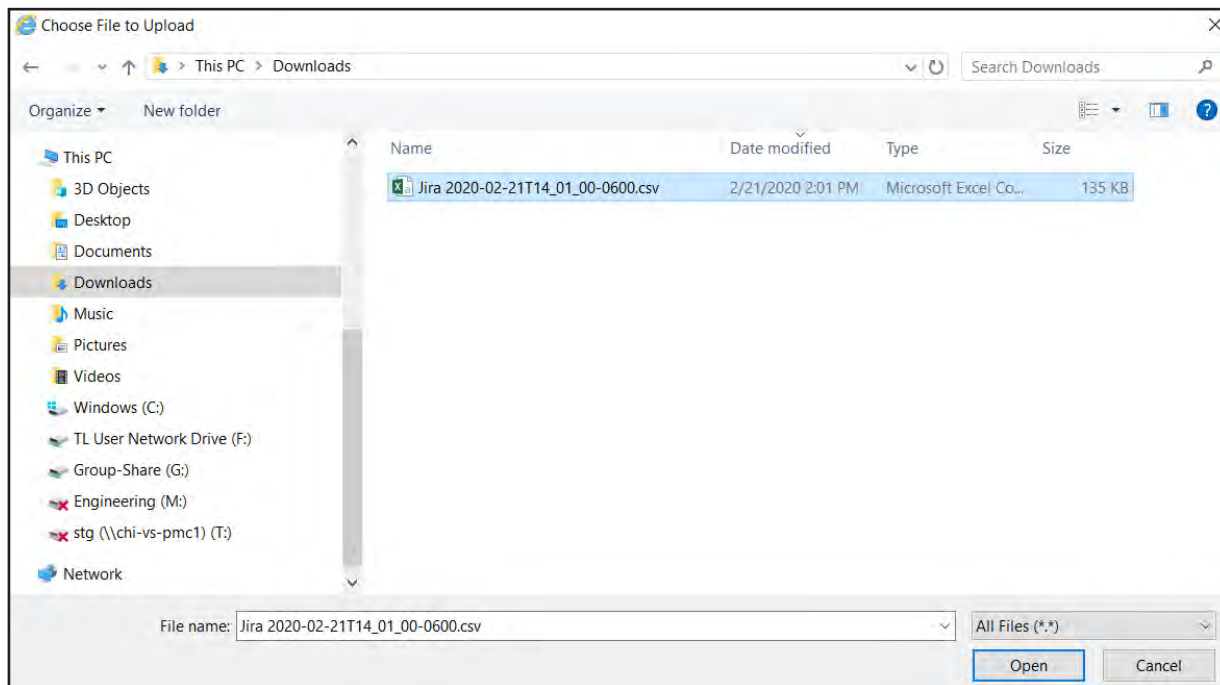


Figure 5-10: Importing a Scan Profile

To export a Scan Profile, click **Export** and select one of the file formats: CSV or XML. Upon making the selection, the export will be executed and a status message will briefly appear. The file will be stored in the Downloads folder of the computer on which PAEM is installed (Figure 5-11).

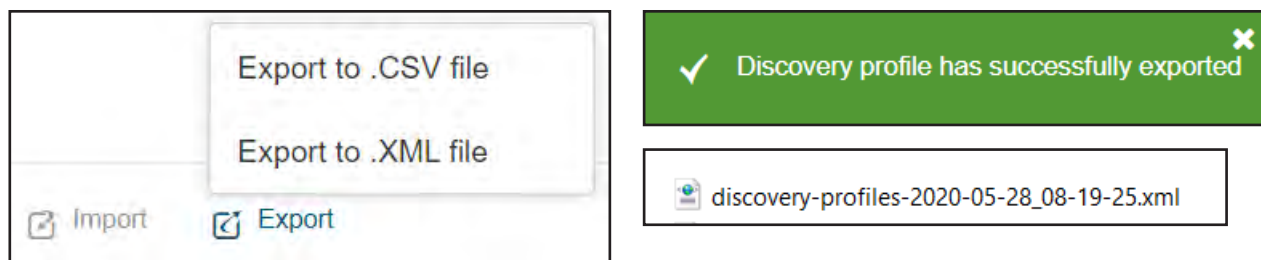


Figure 5-11: Exporting a Discovery Profile

## 5. Main Menu

### 5.1.3 Edit Scan Profiles

To edit a Scan Profile, click the pencil icon to the right of the entry. The corresponding Scan Profile window will open. When all edits have been completed, click the **Apply** button that appears in the *IP Addresses* tab of the edit window (Figure 5-12).

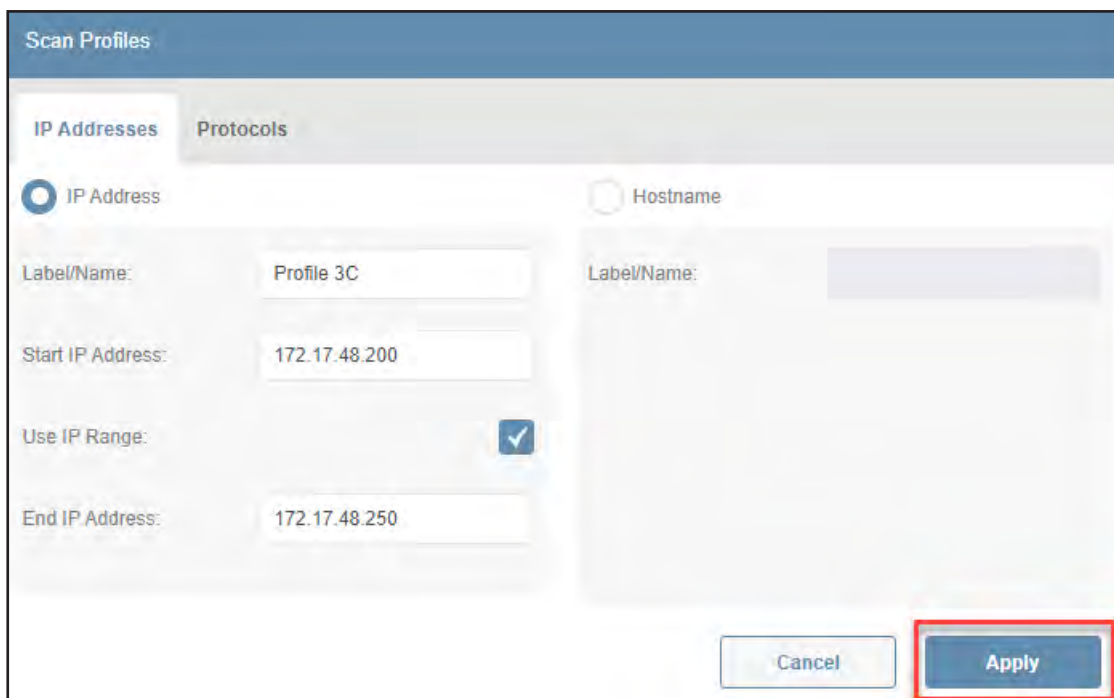
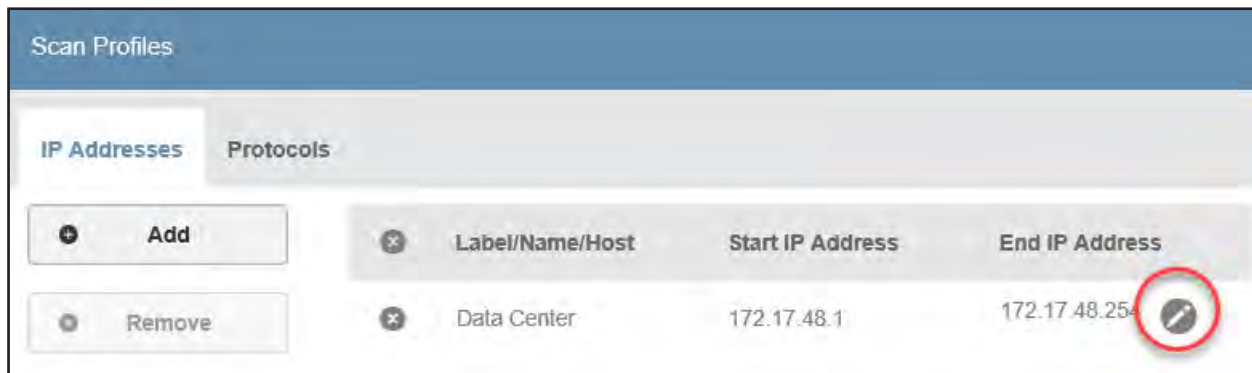


Figure 5-12: Editing a Scan Profile

# 5. Main Menu

## 5.1.4 Run Scan Profiles

In the main Device Inventory page, click **Scan**, followed by the confirmation **Scan** button. An “Active Process” icon will appear at right with a numeral indicating the number of Scan Profiles being scanned (Figure 5-13).



Figure 5-13: Scanning Discovery Profiles

Click on the “Active Process” icon to expand it and display details about the scan. The number represents the quantity of profiles being scanned. Click the **Cancel** button to terminate the scan. Click on the icon again to shrink the window (Figure 5-14).



Figure 5-14: Active Processes

When the process has completed, the Device Inventory chart will populate with all discovered devices (Figure 5-15).

Last Device scan was April 03 2020, 09:56AM. Select 'Scan' to rescan the device catalog

1 2

Status	Device Name	Type	Model	Agent	Version	PAEM Config	MAC Address	IPv4	IPv6
<input type="checkbox"/>	Device0011	PDU	PDU3EVSR6L2130	PADM 20	20.0.0.1892	<input checked="" type="checkbox"/>		172.17.48.173	
<input type="checkbox"/>	DCPDU29	PDU	PDUMVR30HVNETEADM	15	15.5.6.2002	<input checked="" type="checkbox"/>		172.17.48.29	:::0
<input type="checkbox"/>	Device4378	UPS	SU5000RT4UHV	PADM 20	20.0.0.1878	<input checked="" type="checkbox"/>		172.17.48.72	
<input type="checkbox"/>	DCUPS78	UPS	SUINT3000RTL2UPADM	15	15.5.5.1069	<input checked="" type="checkbox"/>		172.17.48.78	:::0
<input type="checkbox"/>				PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>		172.17.48.222	:::0
<input type="checkbox"/>	Device0017	PDU	PDUMNH30	PADM 15	15.5.5.1069	<input checked="" type="checkbox"/>		172.17.48.186	:::0
<input type="checkbox"/>	Device2519	UPS	SU10000RT3UPM	PADM 20	20.0.0.1892	<input checked="" type="checkbox"/>		172.17.48.74	

Figure 5-15: Device Inventory Chart



# 5. Main Menu

## 5.1.5 Device Inventory Overview

<input type="checkbox"/>	Status	Device Name	Type	Model	Agent	Version	PAEM Config	MAC Address	IPv4	IPv6
<input type="checkbox"/>		SRCOOL12K131	AC	SR(X)COOL	PADM 15	15.5.6.2002		00:06:67:41:f7:34	172.17.48.131	::0
<input type="checkbox"/>		PWPDU192	PDU	PDUMNH30HV	PADM 15	15.5.5.1069		00:06:67:40:2fd3	172.17.48.192	::0
<input type="checkbox"/>		PWPDU183	PDU	PDUMV30NETLX	PADM 15	15.5.5.1069		00:06:67:41:1d:2c	172.17.48.183	::0

Figure 5-16: Device Inventory Content

Referring to Figure 5-16 above, the Device Inventory chart is comprised of the following columns (left to right):

- **Checkbox** – Allows selection of one or more devices to undergo PAEM operations. To select all devices, check the box in the column header.
- **Status** – A colored icon denotes the device status; refer to section **3.4.5 Link** for descriptions of the icons and colors.
- **Device Name** – The default name or user-customized name of the device.
- **Type** – The type of device (i.e. UPS, PDU, ATS, AC).
- **Model** – The model number of the device.
- **Agent** – The name of the LX Platform agent.
- **Version** – The version of the agent (e.g. the firmware version of the LX card).
- **PAEM Config** – Click the icon in this column to download the device's configuration for use in mass configuration operations.
- **MAC Address** – The MAC address of the device
- **IPv4** – The IPv4 address of the device
- **IPv6** – The IPv6 address of the device

## 5.1.6 Deleting a Device

To remove a device from the Device Inventory, select its check box and then click **Delete Device** followed by the **Delete** button in the confirmation window (Figure 5-17).

**Note:** Deleting a device does not remove it from a Scan Profile. The device may re-appear in the Device Inventory during the next scan.

The screenshot shows a web interface for device management. At the top, there's a notification: "Last Device scan was October 13 2020, 01:16PM. Select 'Scan' to rescan the device catalog". Below this are navigation buttons: "Add/Edit", "Scan", "Run", "Delete Device", and "Filter". A table below shows a list of devices. The first device, PWPDU192, is selected with a checkmark. A modal dialog titled "Delete Device" is open, asking "Are you sure you wish to delete selected device?". The dialog has "Cancel" and "Delete" buttons.

<input type="checkbox"/>	Status	Device Name	Type	Model	MAC
<input checked="" type="checkbox"/>		PWPDU192	PDU	PDUMNH30HV	
<input type="checkbox"/>		PWPDU183	PDU	PDUMV30NETLX	
<input type="checkbox"/>		PWPDU180	PDU	PDUMNV30HV2LX	

Figure 5-17: Deleting a Device

# 5. Main Menu

## 5.1.7 Configuring Device(s)

There are two ways to import device configurations for use as source files for mass configuration operations:

1. Click the icon in the **PAEM Config** column of the Device Inventory table for the source device (Figure 5-18).

<input type="checkbox"/>	Status	Device Name	Type	Model	Agent	Version	PAEM Config	MAC Address
<input type="checkbox"/>		Device0011	PDU	PDU3EVSR6L2130	PADM 20	20.0.0.1892		
<input type="checkbox"/>		DCPDU29	PDU	PDUMVR30HVNETH	PADM 15	15.5.6.2002		
<input type="checkbox"/>		Device4378	UPS	SU5000RT4UHV	PADM 20	20.0.0.1878		
<input type="checkbox"/>		DCUPS78	UPS	SUINT3000RTXL2U	PADM 15	15.5.5.1069		
<input type="checkbox"/>					PADM 15	15.5.5.1069		
<input type="checkbox"/>		Device0017	PDU	PDUMNH30	PADM 15	15.5.5.1069	Import configuration	
<input type="checkbox"/>		Device2519	UPS	SU10000RT3UPM	PADM 20	20.0.0.1892		

Figure 5-18: Import Configuration from Device Inventory Table

On clicking the icon, an “Active Process” icon will appear in the upper right column as well as a status message regarding the import (Figure 5-19).

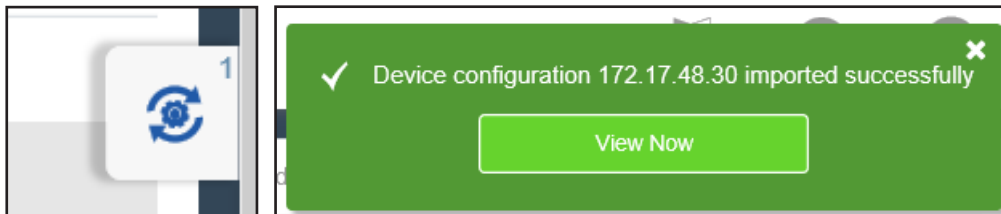


Figure 5-19: Import Progress and Status Message

2. In the *Mass Configuration* tab of the **Manage** menu item, click **Import** (Figure 5-20). In the standard directory tree that opens, navigate to the location of the file, select it and click **Open**.

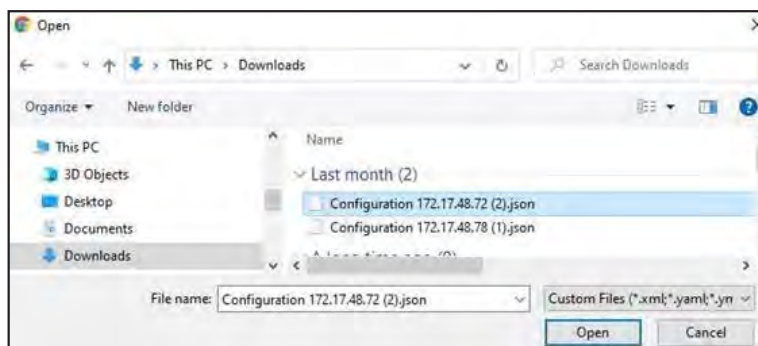
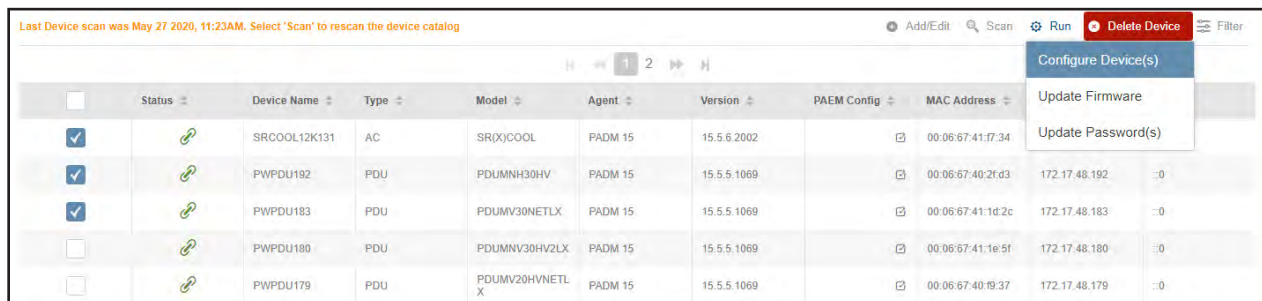


Figure 5-20: Mass Configuration Tab/Import

## 5. Main Menu

To configure one or more devices, select their checkboxes in the Device Inventory chart. Next, click **Run** and select the **Configure Device(s)** option (Figure 5-21).



The screenshot shows a web interface for device management. At the top, there is a status bar indicating the last device scan was on May 27, 2020, at 11:23 AM. Below this is a table with columns for Status, Device Name, Type, Model, Agent, Version, PAEM Config, and MAC Address. The first three rows are selected with checkboxes. A dropdown menu is open over the 'Run' button, showing options: 'Configure Device(s)', 'Update Firmware', and 'Update Password(s)'. The table data is as follows:

Status	Device Name	Type	Model	Agent	Version	PAEM Config	MAC Address
<input checked="" type="checkbox"/>	SRCOOL12K131	AC	SR(X)COOL	PADM 15	15.5.6.2002	<input type="checkbox"/>	00:06:67:41:17:34
<input checked="" type="checkbox"/>	PWPDU192	PDU	PDUIMNH30HV	PADM 15	15.5.5.1069	<input type="checkbox"/>	00:06:67:40:2f:d3
<input checked="" type="checkbox"/>	PWPDU183	PDU	PDUIMV30NETLX	PADM 15	15.5.5.1069	<input type="checkbox"/>	00:06:67:41:10:2c
<input type="checkbox"/>	PWPDU180	PDU	PDUIMV30HV2LX	PADM 15	15.5.5.1069	<input type="checkbox"/>	00:06:67:41:1e:5f
<input type="checkbox"/>	PWPDU179	PDU	PDUIMV20HVNETLX	PADM 15	15.5.5.1069	<input type="checkbox"/>	00:06:67:40:f9:37

Figure 5-21: Configure Device(s) Option

In the “Select Configuration File” window that opens, select the desired configuration file, then click the **Select** button (Figure 5-22). If the required configuration file does not appear in the list, click on the Open icon in the upper right corner to browse for and select a different configuration file.

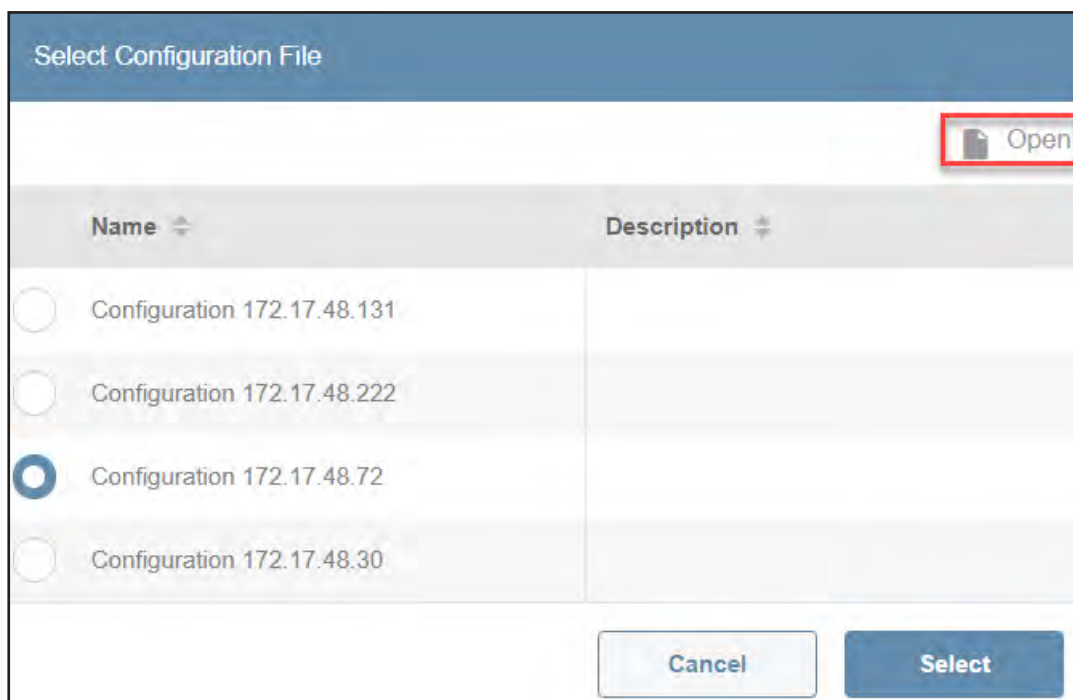
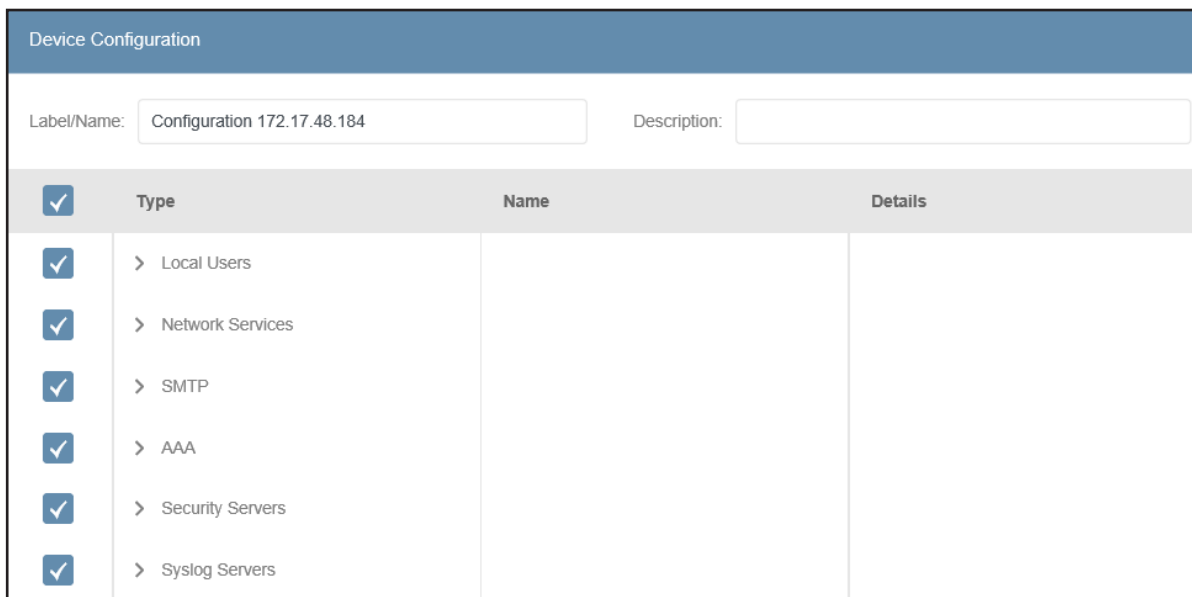


Figure 5-22: Select a Configuration File

## 5. Main Menu

A window will open displaying the contents of the device configuration (Figure 5-23). If desired, edit the name of the configuration file in the “Label/Name” field and add information about the configuration in the “Description” field.

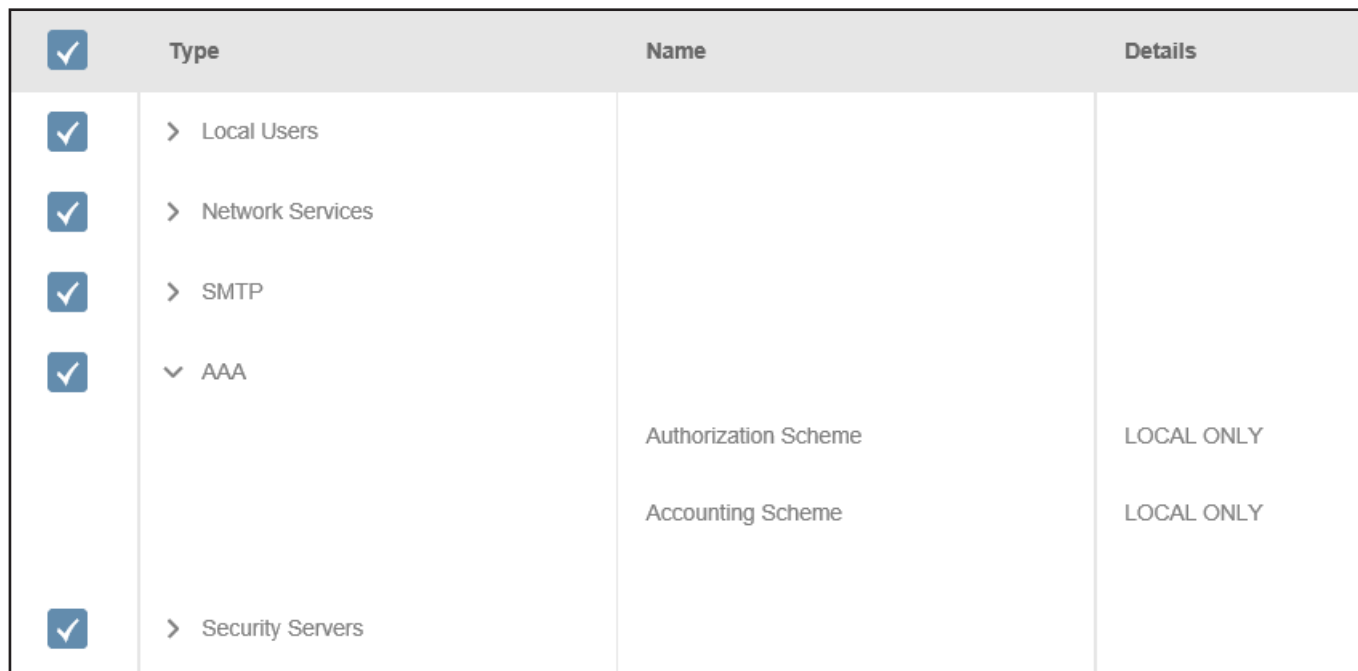


The screenshot shows a window titled "Device Configuration". At the top, there are two input fields: "Label/Name:" with the value "Configuration 172.17.48.184" and "Description:". Below these fields is a table with three columns: "Type", "Name", and "Details". The table contains seven rows, each with a checked checkbox in the "Type" column and a right-pointing caret (>) next to the item name. The items are: Local Users, Network Services, SMTP, AAA, Security Servers, and Syslog Servers.

<input checked="" type="checkbox"/>	Type	Name	Details
<input checked="" type="checkbox"/>	> Local Users		
<input checked="" type="checkbox"/>	> Network Services		
<input checked="" type="checkbox"/>	> SMTP		
<input checked="" type="checkbox"/>	> AAA		
<input checked="" type="checkbox"/>	> Security Servers		
<input checked="" type="checkbox"/>	> Syslog Servers		

Figure 5-23: Configuration File Contents

Click on the caret icon (>) next to an item to expand it, displaying its details (Figure 5-24).



The screenshot shows the expanded configuration details for the AAA item. The table has three columns: "Type", "Name", and "Details". The AAA item is expanded, showing two sub-items: "Authorization Scheme" and "Accounting Scheme", both with "LOCAL ONLY" in the "Details" column. The other items in the table are collapsed, indicated by right-pointing caret (>) icons.

<input checked="" type="checkbox"/>	Type	Name	Details
<input checked="" type="checkbox"/>	> Local Users		
<input checked="" type="checkbox"/>	> Network Services		
<input checked="" type="checkbox"/>	> SMTP		
<input checked="" type="checkbox"/>	∨ AAA		
		Authorization Scheme	LOCAL ONLY
		Accounting Scheme	LOCAL ONLY
<input checked="" type="checkbox"/>	> Security Servers		

Figure 5-24: Expanded Element (AAA)

## 5. Main Menu

Using the checkboxes, select all items that are to be included in the mass configuration. If desired, click Export at the bottom of the window; this will export the current configuration to the Downloads folder of the computer. Click the **Next** button at the bottom of the window once all selections have been made (Figure 5-25).

The screenshot shows a window titled "Device Configuration". At the top, there are two input fields: "Label/Name:" with the value "Configuration 172.17.48.30" and "Description:". Below these is a table with three columns: "Type", "Name", and "Details". The "Type" column contains a list of configuration elements, each with a checked checkbox and a right-pointing chevron. The "Name" and "Details" columns are currently empty. At the bottom left, there is an "Export" button with a document icon, highlighted with a red box. At the bottom right, there are "Cancel" and "Next >" buttons.

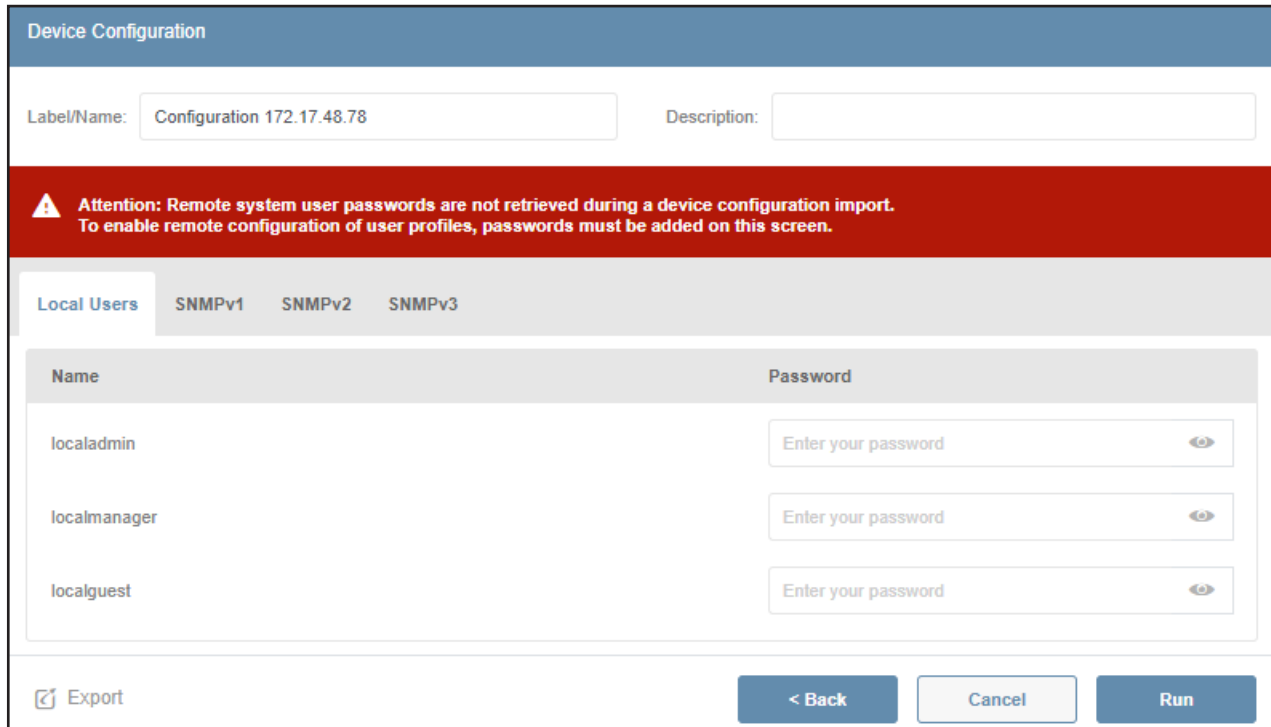
<input checked="" type="checkbox"/>	Type	Name	Details
<input checked="" type="checkbox"/>	> Local Users		
<input checked="" type="checkbox"/>	> Network Services		
<input checked="" type="checkbox"/>	> SMTP		
<input checked="" type="checkbox"/>	> AAA		
<input checked="" type="checkbox"/>	> Security Servers		
<input checked="" type="checkbox"/>	> Syslog Servers		
<input checked="" type="checkbox"/>	> Application Log Settings		
<input checked="" type="checkbox"/>	> Time Settings		
<input checked="" type="checkbox"/>	> Auto Probes		
<input checked="" type="checkbox"/>	> Events		
<input checked="" type="checkbox"/>	> Variables		
<input checked="" type="checkbox"/>	> Actions		

Figure 5-25: Selected Configuration Elements

## 5. Main Menu

A window will appear in which access credentials can be entered. During a Mass Configuration, passwords and related authorization parameters are not retrieved from the source configuration. To include these passwords and parameters in the mass configuration, they must be entered in this window (Figure 5-26). Note that there are multiple tabs in which passwords/parameters are to be entered: *Local Users*, *SNMPv1*, *SNMPv2* and *SNMPv3*. Once all passwords have been entered, click the **Run** button.

**Note:** If configuration items requiring passwords (e.g. Local Users) are selected for inclusion in the Mass Configuration, but the passwords and authorization parameters are not entered, devices will fail Mass Configuration operations.

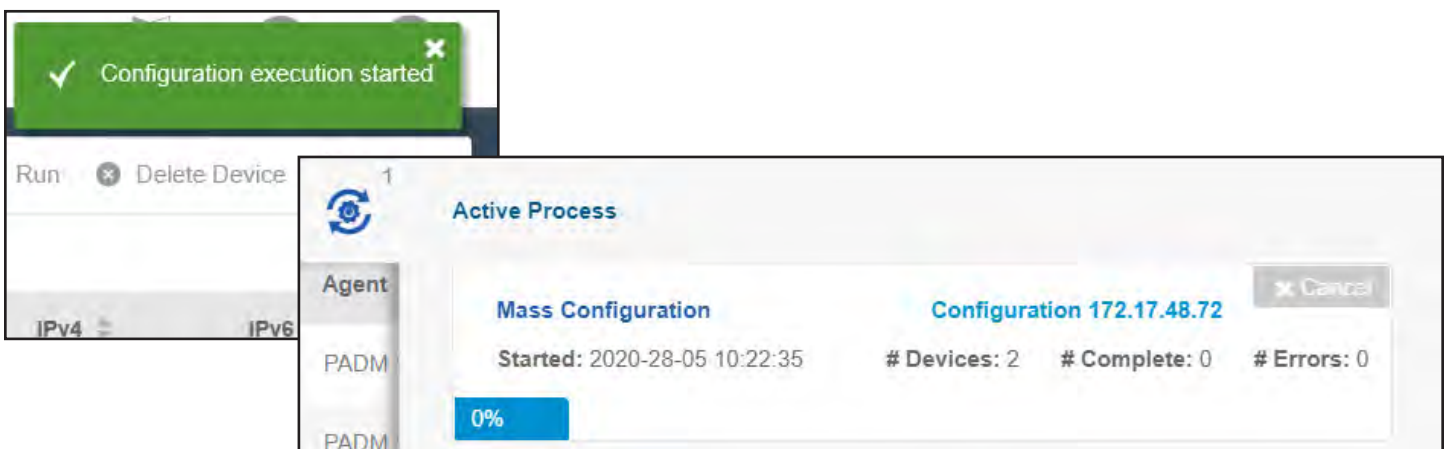


The screenshot shows the 'Device Configuration' window. At the top, there are input fields for 'Label/Name' (containing 'Configuration 172.17.48.78') and 'Description'. Below this is a red warning banner: 'Attention: Remote system user passwords are not retrieved during a device configuration import. To enable remote configuration of user profiles, passwords must be added on this screen.' Underneath is a tabbed interface with 'Local Users', 'SNMPv1', 'SNMPv2', and 'SNMPv3'. The 'Local Users' tab is active, showing a table with columns 'Name' and 'Password'. The table lists three users: 'localadmin', 'localmanager', and 'localguest', each with a corresponding password input field. At the bottom, there is an 'Export' button, a '< Back' button, a 'Cancel' button, and a 'Run' button.

Figure 5-26: Enter Device Passwords

A progress indicator and status message will appear denoting the start of the mass configuration (Figure 5-27).

**Note:** the configuration process may take more than 20 minutes to complete and the progress indicator may show "0%" for a majority of that time. Please be patient.

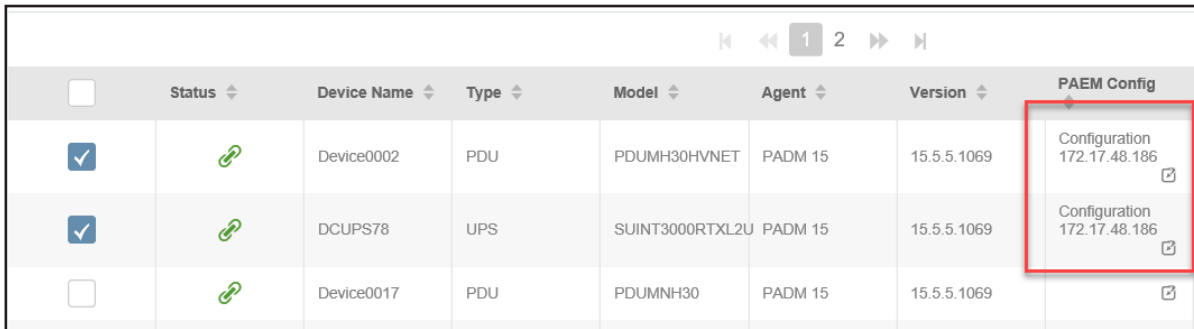


The screenshot shows two overlapping windows. The top window is a green notification box with a checkmark icon and the text 'Configuration execution started'. The bottom window is titled 'Active Process' and shows a progress bar for 'Mass Configuration' at 0%. The progress bar is blue and has '0%' written on it. To the right of the progress bar, there is a 'Cancel' button. Below the progress bar, there is a table with the following data: 'Started: 2020-28-05 10:22:35', '# Devices: 2', '# Complete: 0', and '# Errors: 0'. The background shows a partial view of the 'Run' button and a 'Delete Device' button.

Figure 5-27: Active Process Icon and Message.

## 5. Main Menu

Upon completion, the “PAEM Config” column will display the updated configuration file name for the devices that underwent the mass configuration (Figure 5-28).



<input type="checkbox"/>	Status	Device Name	Type	Model	Agent	Version	PAEM Config
<input checked="" type="checkbox"/>		Device0002	PDU	PDUMH30HVNET	PADM 15	15.5.5.1069	Configuration 172.17.48.186
<input checked="" type="checkbox"/>		DCUPS78	UPS	SUINT3000RTXL2U	PADM 15	15.5.5.1069	Configuration 172.17.48.186
<input type="checkbox"/>		Device0017	PDU	PDUMNH30	PADM 15	15.5.5.1069	

Figure 5-28: Updated PAEM Config Column

### 5.1.8 Updating Firmware

To update the LX Card firmware on one or more devices, select their checkboxes in the Device Inventory table. Next, click **Run** and select the **Update Firmware** option (Figure 5-29).



Figure 5-29: Update Firmware Option

To check whether a new firmware version is available for download from the Tripp Lite website, click on **Check for Updates**. The result of the check will appear in the window (Figure 5-30).

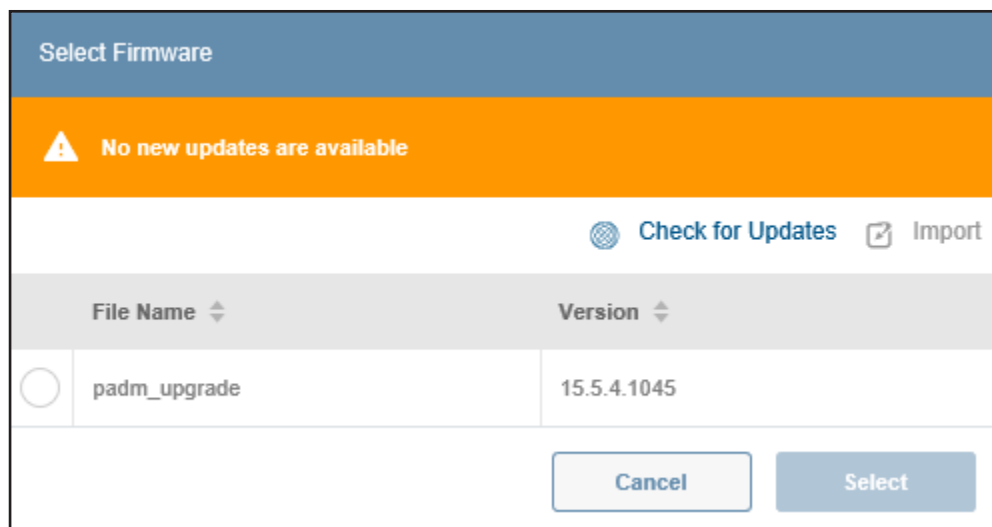


Figure 5-30: Firmware Availability Message

## 5. Main Menu

To upload a firmware file from a known location, click **Import**, then browse to the location. Select the file, then click **Open** (Figure 5-31).

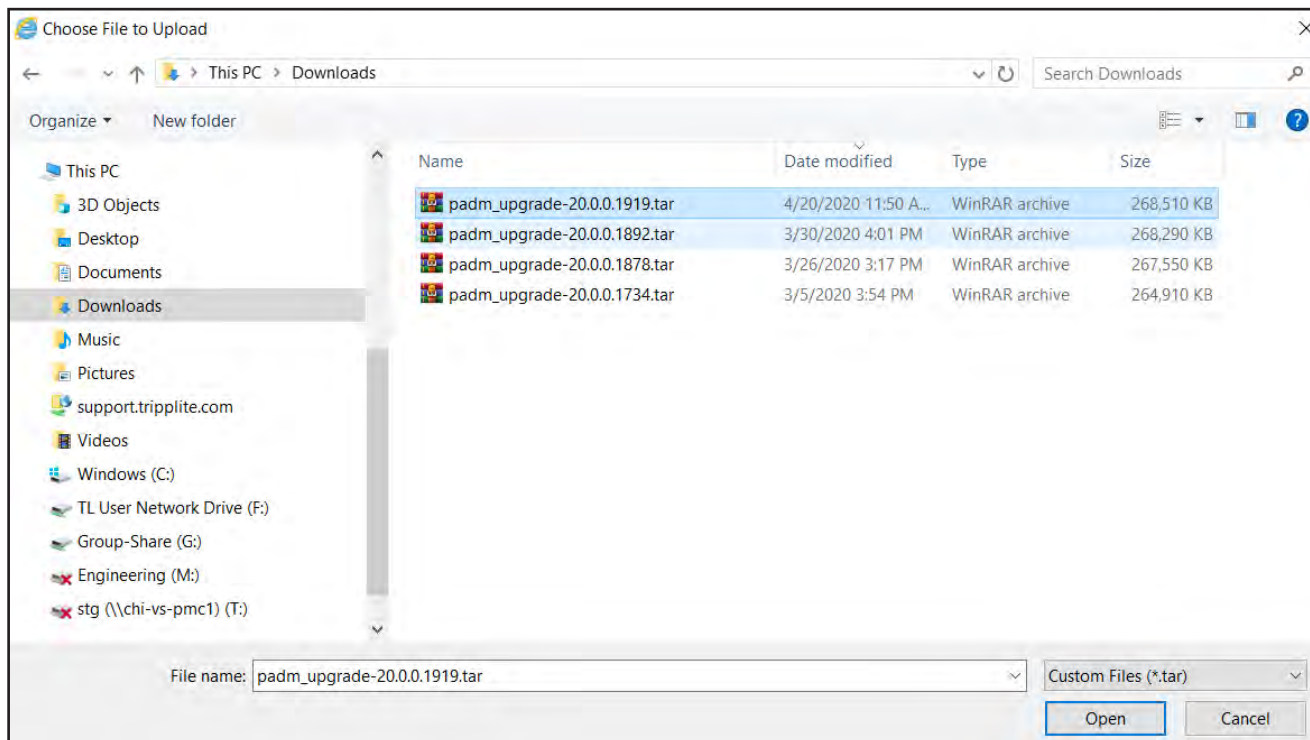


Figure 5-31: Importing an Firmware Update File

The "Select Firmware" window will update to reflect the imported file. Select the desired file, then click the **Select** button (Figure 5-32).

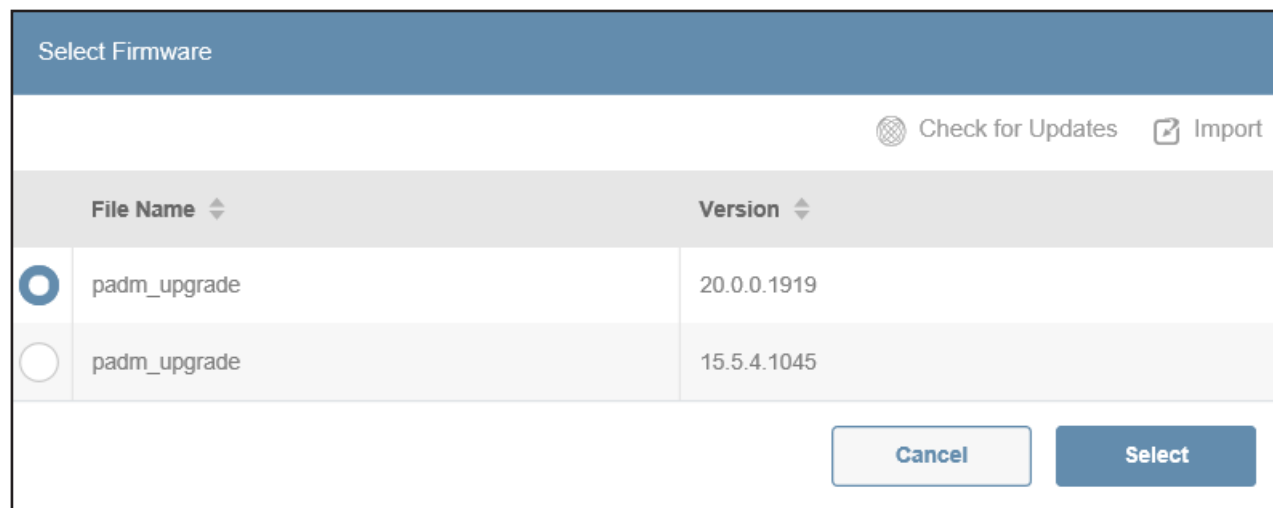


Figure 5-32: Select Firmware



## 5. Main Menu

The system will perform a check of the selected firmware version against the selected devices. A message reflective of the check will appear in the box. Below are examples of a standard update message and one involving a downgrade. Click the **Run** button to continue (Figure 5-33).

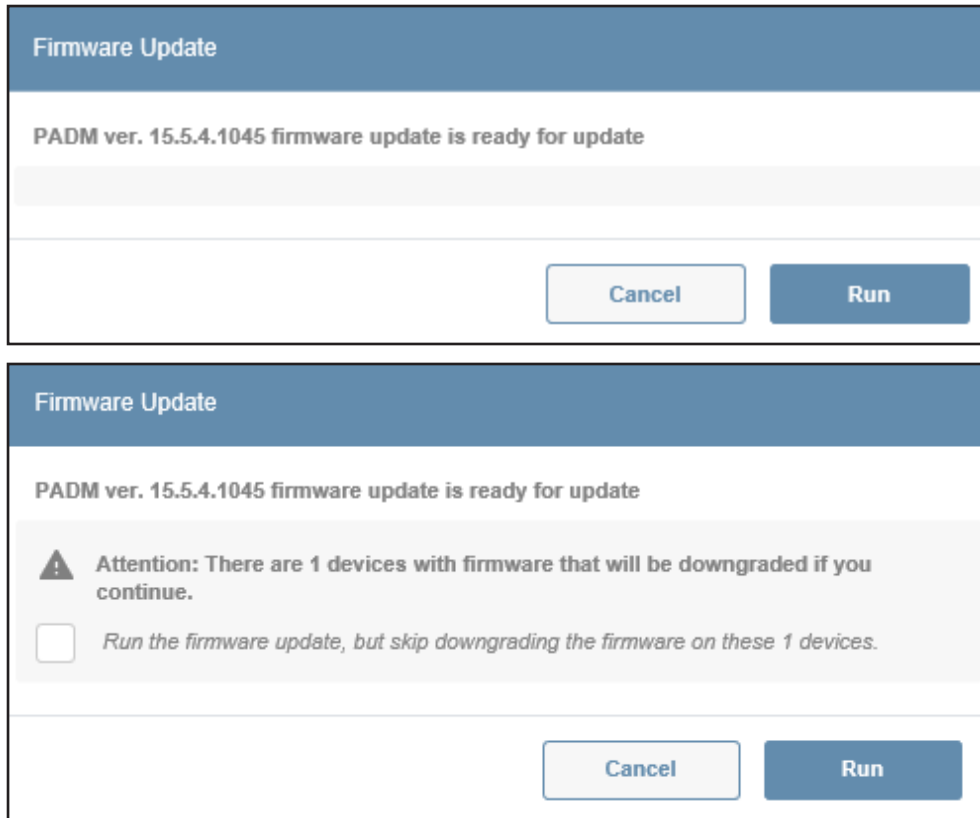
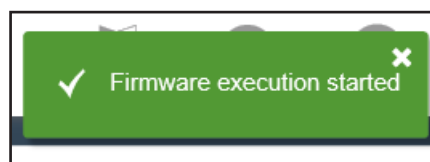


Figure 5-33: Firmware Check Messages

A status message will appear denoting the start of the firmware update. Warning icons will appear in the Status column in the Device Inventory page to reflect that the devices are undergoing the update (Figure 5-34).



Last Device scan was April 20 2020, 01:52PM. Select 'Scan' to rescan the device catalog

	Status	Device Name	Type	Model	Agent	Version
<input checked="" type="checkbox"/>		Device2519	UPS	SU10000RT3UPM	PADM 20	20.0.0.1892
<input checked="" type="checkbox"/>		Device0011	PDU	PDU3EVSRL2130	PADM 20	20.0.0.1892
<input type="checkbox"/>		Device0002	PDU	PDUMH30HVNET	PADM 15	15.5.5.1069
<input type="checkbox"/>		DCUPS78	UPS	SUINT3000RTXL2U	PADM 15	15.5.5.1069

Figure 5-34: Status Message and Status Column Indication

## 5. Main Menu

The “Active Process” icon will appear in the upper right. Click the icon to display information about the process. Press the **Cancel** button to terminate the process (Figure 5-35).

**Note:** The update process may take several minutes. Please be patient.

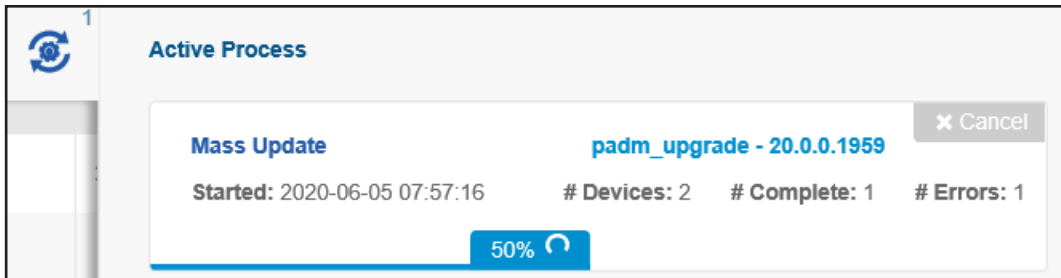


Figure 5-35: Active Process – Firmware Update

### 5.1.9 Update Password

Certain Regulations require that default passwords must be changed on initial use. Also, PADM20 security policies (i.e. maximum password age reached) may force changing the password. In both cases, this condition will be denoted by the yellow lock icon in the Device Inventory screen. Use the Update Password function to change the user password on the device(s). Afterwards, be sure to update the respective Scan Profile Protocol (section **5.1.1 Creating a Scan Profile**) in PAEM with the same password. Alternatively, first create a new Scan Profile Protocol entry with the new password, then execute the Change Password function to update the user password on the device(s). To update the login password one or more devices, select their checkboxes in the Device Inventory page, then click **Run** and select the **Update Password(s)** option. A window will open in which the new password can be entered (Figure 5-36).

**Note:** The password length must be between 4 and 32 characters.

Click the **Run** button when the new password has been entered and confirmed (Figure 5-36).

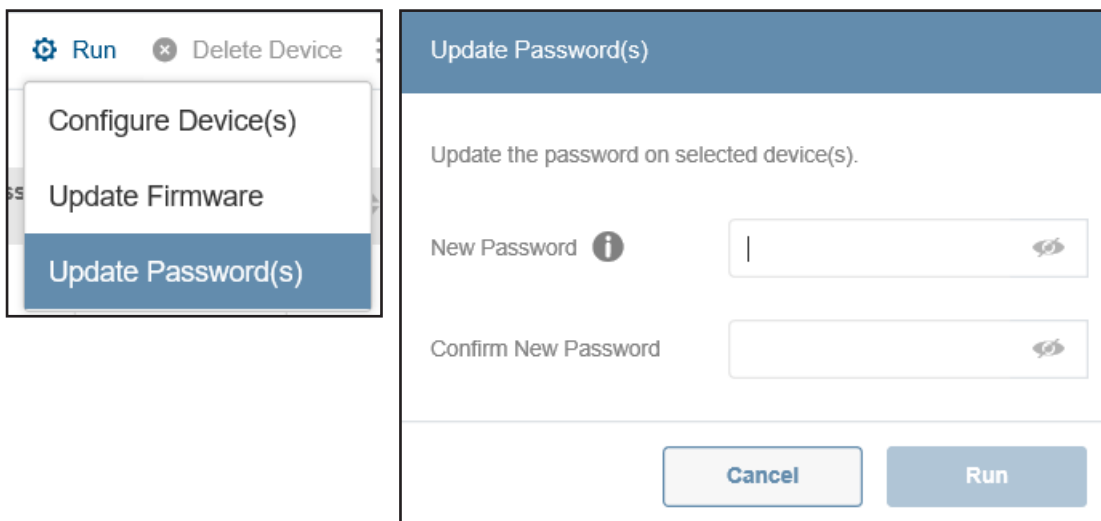


Figure 5-37: Update Passwords

A status message will appear indicating that the password change is being applied (Figure 5-38).

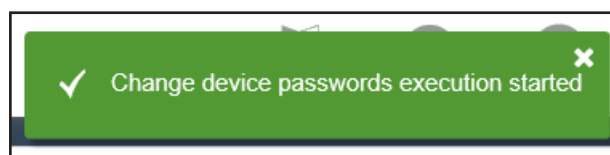


Figure 5-38: Status Message for Password Change

**Note:** When changing the devices' passwords, ensure all Scan Profiles are also updated with the new password(s).

# 5. Main Menu

## 5.2 Manage

The **Manage** menu item is comprised of two tabs: *Firmware Updates* and *Mass Configuration*. The *Firmware Updates* tab displays a list of firmware files that have been imported into PAEM (Figure 5-39).

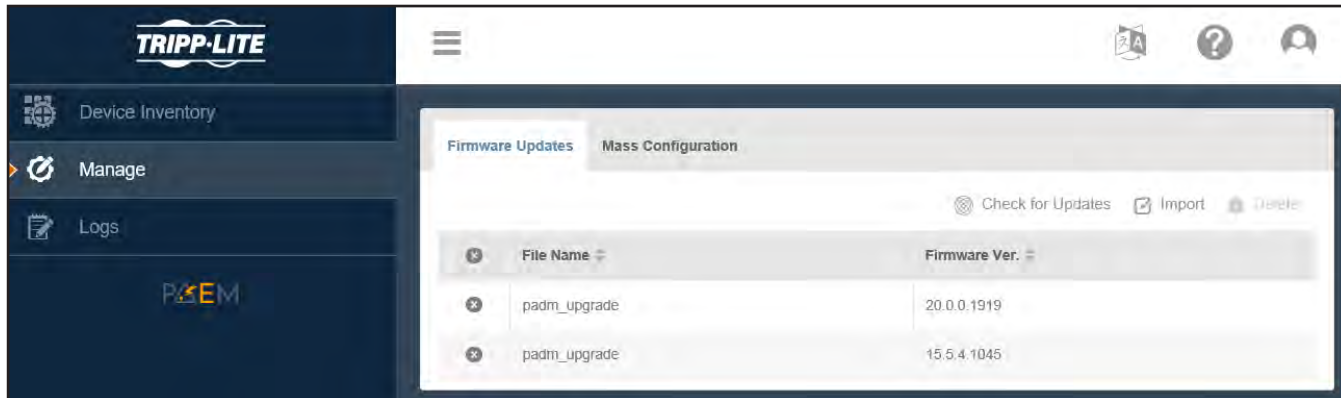


Figure 5-39: Firmware Updates Tab

Click on **Check for Updates** to confirm whether a new firmware version is available in comparison to the ones already imported. This action checks for new firmware versions of both 15.5.x and 20.x.x. A message will appear displaying the results of the search. If new firmware is available, PAEM will automatically upload it and display a dialog box from which the update can be initiated (Figure 5-40).

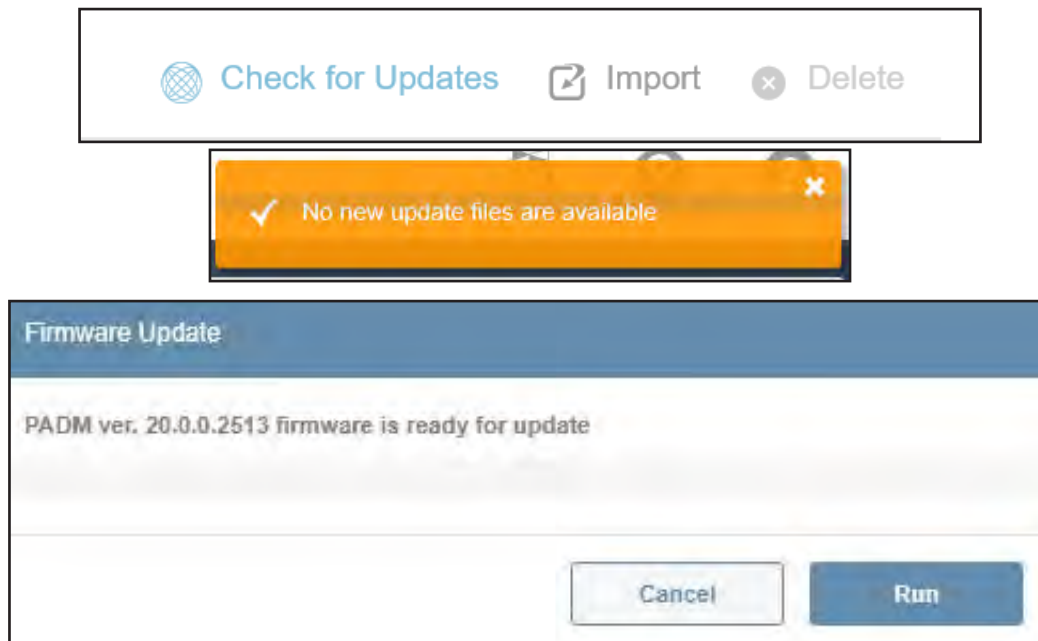


Figure 5-40: Check for Updates

Click **Import** to browse for a firmware file (Figure 5-41). This action is identical to the one described in section **5.1.7 Configuring Device(s)**.



Figure 5-41: Firmware Import

## 5. Main Menu

To remove one or more Firmware files from the list. Click the  icon to the left of each required file, then click the **Delete** button at right. In the confirmation window that appears, click the **Delete** button.

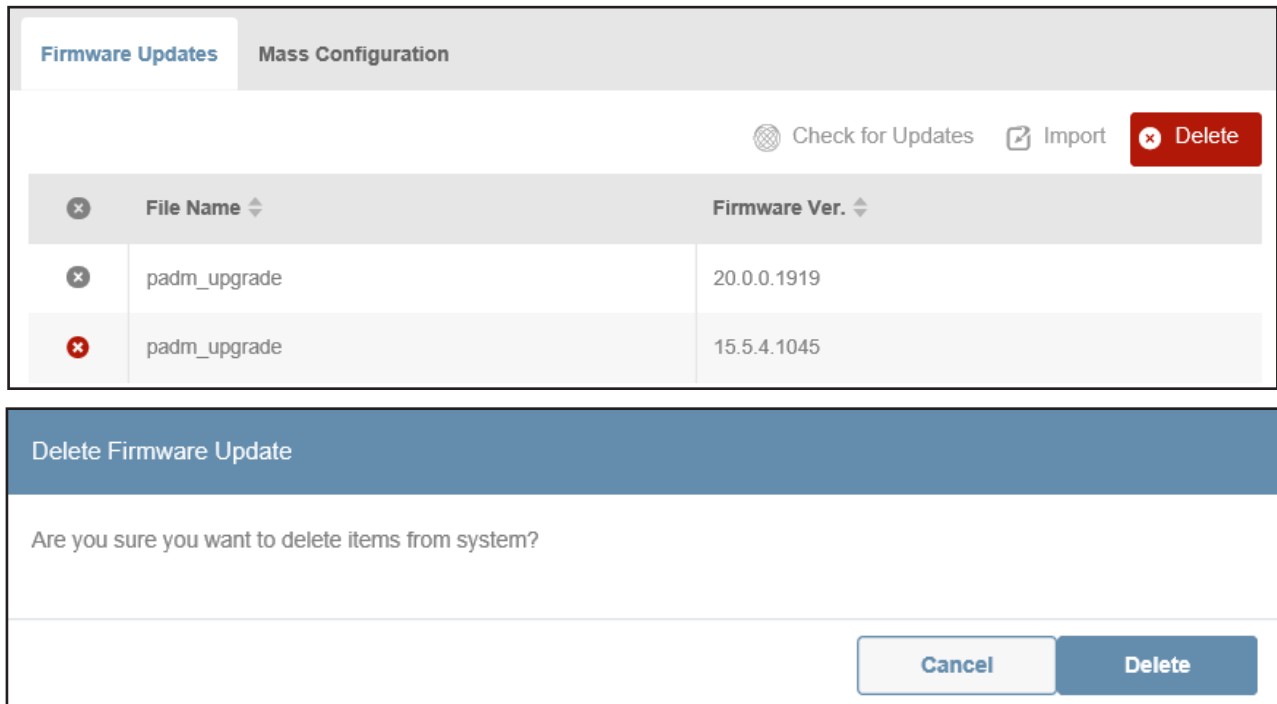


Figure 5-42: Deleting Firmware Files

The *Mass Configuration* tab displays a list of imported device configurations. Click **Import** to browse for a stored configuration file (Figure 5-43). This is identical to the Import function described in section **5.1.7 Configuring Device(s)**.

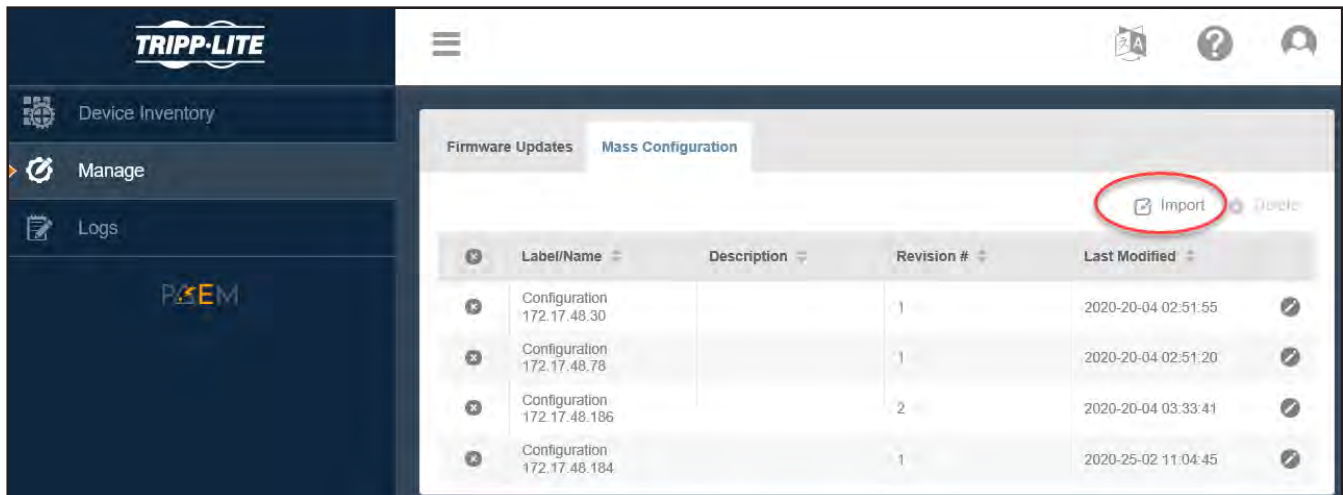

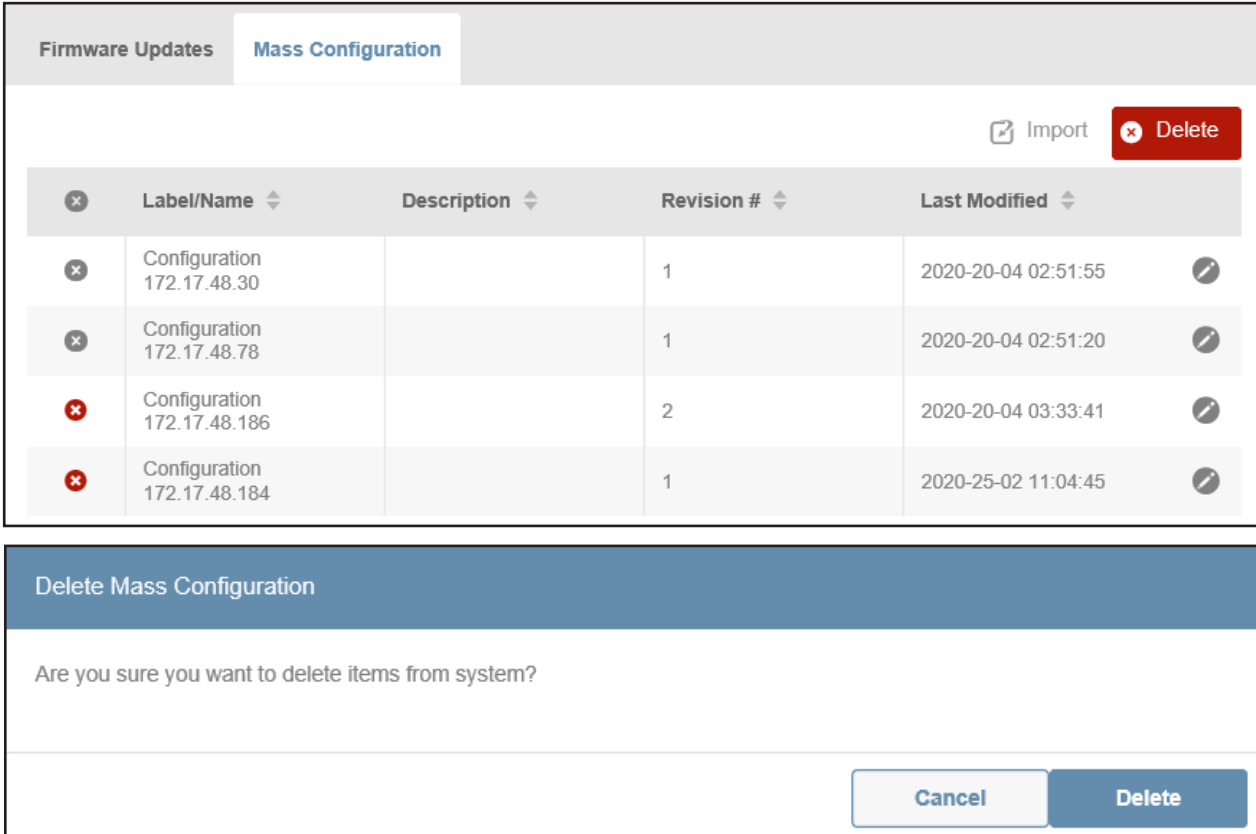












Figure 5-43: Mass Configuration Tab and Import

## 5. Main Menu

To remove one or more Configuration files from the list, click the  icon to the left of each required file, then click the **Delete** button at right. In the confirmation window that appears, click the **Delete** button (Figure 5-44).



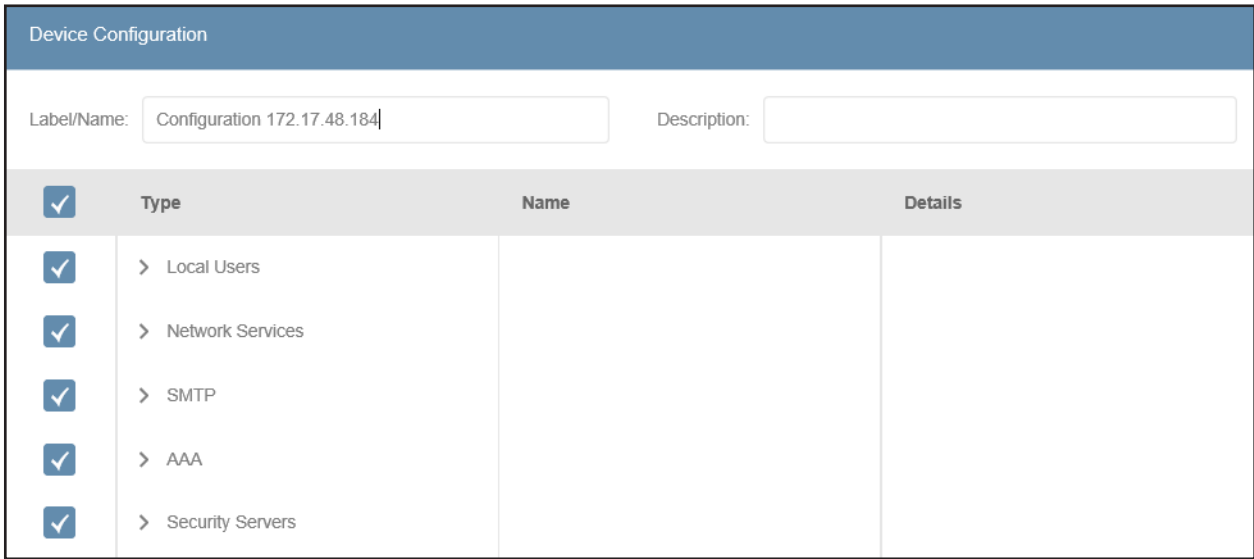
The screenshot shows the 'Mass Configuration' tab in the 'Firmware Updates' section. At the top right, there are 'Import' and 'Delete' buttons. Below is a table with columns: Label/Name, Description, Revision #, and Last Modified. Each row has a delete icon (x) on the left and an edit icon (pencil) on the right. The table contains four rows of configuration data.

	Label/Name	Description	Revision #	Last Modified	
	Configuration 172.17.48.30		1	2020-20-04 02:51:55	
	Configuration 172.17.48.78		1	2020-20-04 02:51:20	
	Configuration 172.17.48.186		2	2020-20-04 03:33:41	
	Configuration 172.17.48.184		1	2020-25-02 11:04:45	

Below the table is a confirmation dialog titled 'Delete Mass Configuration'. It asks 'Are you sure you want to delete items from system?' and has 'Cancel' and 'Delete' buttons.

Figure 5-44: Delete Configurations

To edit a configuration, click the pencil icon to the right of the item. This opens the Device Configuration window described in section **5.1.7 Configuring Device(s)** (Figure 5-45).



The screenshot shows the 'Device Configuration' window. It has two input fields: 'Label/Name' (containing 'Configuration 172.17.48.184') and 'Description'. Below these is a table with columns: Type, Name, and Details. The 'Type' column has a checked checkbox and a chevron icon next to each item.

<input checked="" type="checkbox"/>	Type	Name	Details
<input checked="" type="checkbox"/>	> Local Users		
<input checked="" type="checkbox"/>	> Network Services		
<input checked="" type="checkbox"/>	> SMTP		
<input checked="" type="checkbox"/>	> AAA		
<input checked="" type="checkbox"/>	> Security Servers		

Figure 5-45: Device Configuration Window

During a Mass Configuration, if PAEM encounters an issue when configuring a device, it will stop all further configuration of the device. The device will retain the changes made during the Mass Configuration to that point. PAEM will neither roll back nor proceed with configuring that device.

# 5. Main Menu

## 5.3 Logs

The **Logs** menu item displays a record of all actions taken by PAEM, as displayed in chronological order with the most recent events at the top of the list (Figure 5-46). A green checkmark indicates the process completed successfully. A yellow triangle indicates an error occurred during the process.

Started	Finished	Type	Details	Status
2020-21-10 01:38:06	2020-21-10 01:39:09	Discovery	Device Discovery for 'Profile 1A'	▲
2020-21-10 01:38:06	2020-21-10 01:41:05	Discovery	Device Discovery for 'Profile 2B'	▲
2020-21-10 01:38:06	2020-21-10 01:38:25	Discovery	Device Discovery for 'Scan Profile #1'	▲
2020-21-10 01:38:06	2020-21-10 01:39:09	Discovery	Device Discovery for 'Profile 3C'	✓
2020-14-10 10:13:32	2020-14-10 10:45:47	Mass Update	Firmware 20.0.0.2399	✓
2020-13-10 01:13:25	2020-13-10 01:14:43	Discovery	Device Discovery for 'Profile 1A'	▲
2020-13-10 01:13:25	2020-13-10 01:16:23	Discovery	Device Discovery for 'Profile 2B'	▲

Figure 5-46: Logs Page

To view details of a specific event, click on the magnifying glass to the right of the item. Note that within the details window, further details may be available via the magnifying glass icon, at right. Click **Back** to return to the main Logs page (Figure 5-47).

Status	Device Name	Type	Model	Agent	Version	PAEM Config	IPv4	IPv6
✓	Device8067	UPS	SMART750RM1UN	PADM 20	20.0.0.2343		172.17.48.77	fe80::206:67ff:fe41:a25f
✓	Device0135	PDU	PDU3XEVS6L2230	PADM 20	20.0.0.2294		172.17.48.81	fe80::206:67ff:fe41:3e86
✓	Device0076	UPS	SU10000RT3UPM	PADM 20	20.0.0.2343		172.17.48.75	fe80::206:67ff:fe40:433

Figure 5-47: Log Entry Details

## 6. Technical Support

For questions or information related to PADM, please contact Tripp Lite Tech Support:

**Phone:** 773.869.1234 (7am – 6pm CST).

**Web:** [tripplite.com/support](http://tripplite.com/support)

**Email:** [techsupport@tripplite.com](mailto:techsupport@tripplite.com)

**Note:** *Online Product Support and Tripp Lite Technical Support contact information are also available via the Help icon in the PADM Top Menu.*

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